

Sitecore 8.2u1 on Azure

Optimizing Sitecore on Azure App Service

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Guest speakers:
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Azure Global Blackbelt – Middle East and Africa



Agenda

Demos and slides

<http://github.com/sabbour/sc-appservice>

- Introduction
- App Services Fundamentals
 - App Service Plans and Web Apps
 - Web Deploy fundamentals
 - Site Slots
 - ARM and Powershell deployment
- Sitecore 8.2u1 Architectural Components
 - Overview of Azure components & relation to roles
 - Role Configurations
- Automated Provisioning
 - Provisioning Overview
 - ARM Templates
 - Web Deploy
 - Sitecore Azure Toolkit
- Monitoring and Operations
 - App Insights
- Sizing and Roadmap
- Resources

9.00 – 12.00 Intro, Fundamentals & Architecture

12.00 – 12.45 Lunch

12.45 – 3.15 Provisioning, Monitoring & Operations

3.15 – 3.45 Sizing and Roadmap

Balance of responsibility

Balance of control and responsibility depends on the category of the service

MOVE-IN READY

Use immediately with minimal configuration

SOME ASSEMBLY REQUIRED

Existing services are a starting point, with additional configuration for a custom fit

BUILD FROM THE GROUND UP

Building blocks, create your own solution or apps from scratch

Responsibility	On-Prem	IaaS	PaaS	SaaS
Applications	Customer	Customer	Customer	Microsoft
Data	Customer	Customer	Customer	Microsoft
Runtime	Customer	Customer	Microsoft	Microsoft
Middleware	Customer	Customer	Microsoft	Microsoft
O/S	Customer	Customer	Microsoft	Microsoft
Virtualization	Customer	Microsoft	Microsoft	Microsoft
Servers	Customer	Microsoft	Microsoft	Microsoft
Storage	Customer	Microsoft	Microsoft	Microsoft
Networking	Customer	Microsoft	Microsoft	Microsoft

 Customer  Microsoft

Security & Management

 Security Center

 Portal

 Azure Active Directory

 Azure AD B2C

 Multi-Factor Authentication

 Automation

 Scheduler

 Key Vault

 Store/ Marketplace

 VM Image Gallery & VM Depot

Media & CDN



Media Services



Media Analytics



Content Delivery Network

Integration



API Management



BizTalk Services



Logic Apps



Service Bus

Application Platform



Web Apps



Mobile Apps



API Apps



Cloud Services



Service Fabric



Notification Hubs



Functions

Compute Services



Container Service



VM Scale Sets



Batch



RemoteApp



Developer Services



Visual Studio



Mobile Engagement



VS Team Services



Xamarin



Application Insights



HockeyApp

Data



SQL Database



SQL Data Warehouse



DocumentDB



SQL Server Stretch Database



Redis Cache



Storage Tables



Azure Search

Intelligence



Cognitive Services



Bot Framework



Cortana

Analytics & IoT



HDInsight



Machine Learning



Stream Analytics



Data Catalog



Data Lake Analytics Service



Data Lake Store



IoT Hub



Event Hubs



Data Factory



Power BI Embedded

Infrastructure Services

Compute



Virtual Machines



Containers

Storage



Blob



Queues



Files



Disks

Networking



Virtual Network



Load



DNS



Express



Traffic Manager



VPN Gateway



App Gateway

Datacenter Infrastructure (32 Regions, 24 Online)

Hybrid Cloud



Azure AD Health Monitoring



AD Privileged Identity Management



Domain Services



Backup



Operational Analytics



Import/Export



Azure Site Recovery



StorSimple

Security & Management

Security Center

Portal

Azure Active Directory

Azure AD B2C

Multi-Factor Authentication

Automation

Scheduler

Key Vault

Store/ Marketplace

VM Image Gallery & VM Depot

Media & CDN



Integration



Platform Services

Application Platform



Data



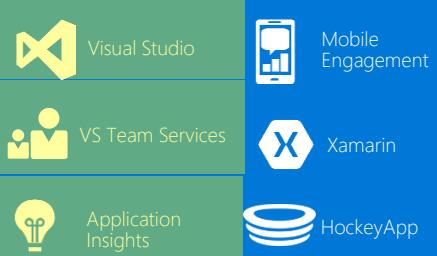
Intelligence



Compute Services



Developer Services



Analytics & IoT



Hybrid Cloud

Azure AD Health Monitoring

AD Privileged Identity Management

Domain Services

Backup

Operational Analytics

Import/Export

Azure Site Recovery

StorSimple

Compute



Storage



Infrastructure Services

Networking



Datacenter Infrastructure (32 Regions, 24 Online)

Azure Hyper-Scale Global Infrastructure



- Top 3 Networks Worldwide
- 2.5x AWS Regions, 7x Google
- G Series – Largest VM Worldwide, 32 Cores, 448 GBs RAM, SSD, ...

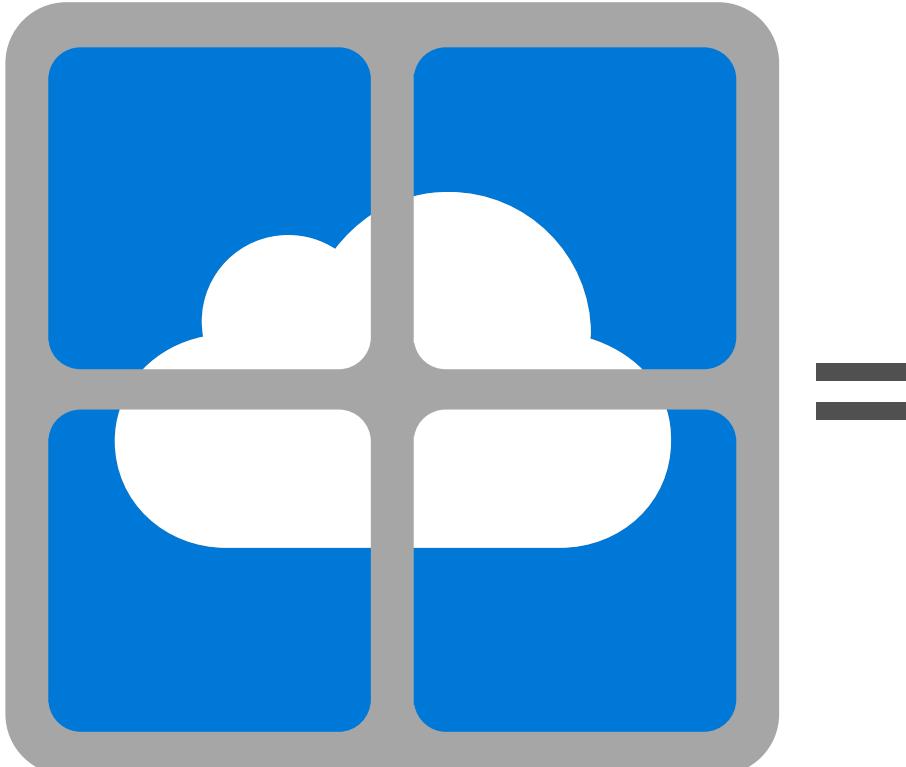
* Operated by 21Vianet

** Data Stewardship by Deutsche Telekom

Azure App Service



Azure App Service



Web apps

Web apps that scale
with your business



Mobile apps

Build mobile apps
for any device



Functions

Serverless event based
development
accelerator



API apps

Easily build and
consume APIs in
the cloud

App Service Core Capabilities

All features and capabilities are shared across all of App Service application (Web, Mobile, Functions and API)

Enterprise grade

Designed for secure mission-critical applications

- Premium Tier
- App Service Environments
- Hybrid Connections / VPN Support
- Scheduled Backup
- Azure Active Directory Integration
- Site Resiliency, HA, and DR
- Role Base Access Control
- Audit / Compliance
- Enterprise Migration
- Client Certs
- IP Restrictions/ SSL
- Dedicated IP address IP / NSG
- Web Sockets
- WW Datacenter Coverage

Fully managed

Optimized for Availability and Automatic scale

- Automated Deployment
- AutoScale
- Built-in Load Balancing
- WW Datacenter Coverage
- End Point Monitoring & Alerts
- WildCard Support
- HTTP Compression
- WebJobs
- Sticky Sessions
- OS & Framework Patching
- Auto-Healing
- Local Cache
- Init Module
- Per Site Scaling
- Easy Auth

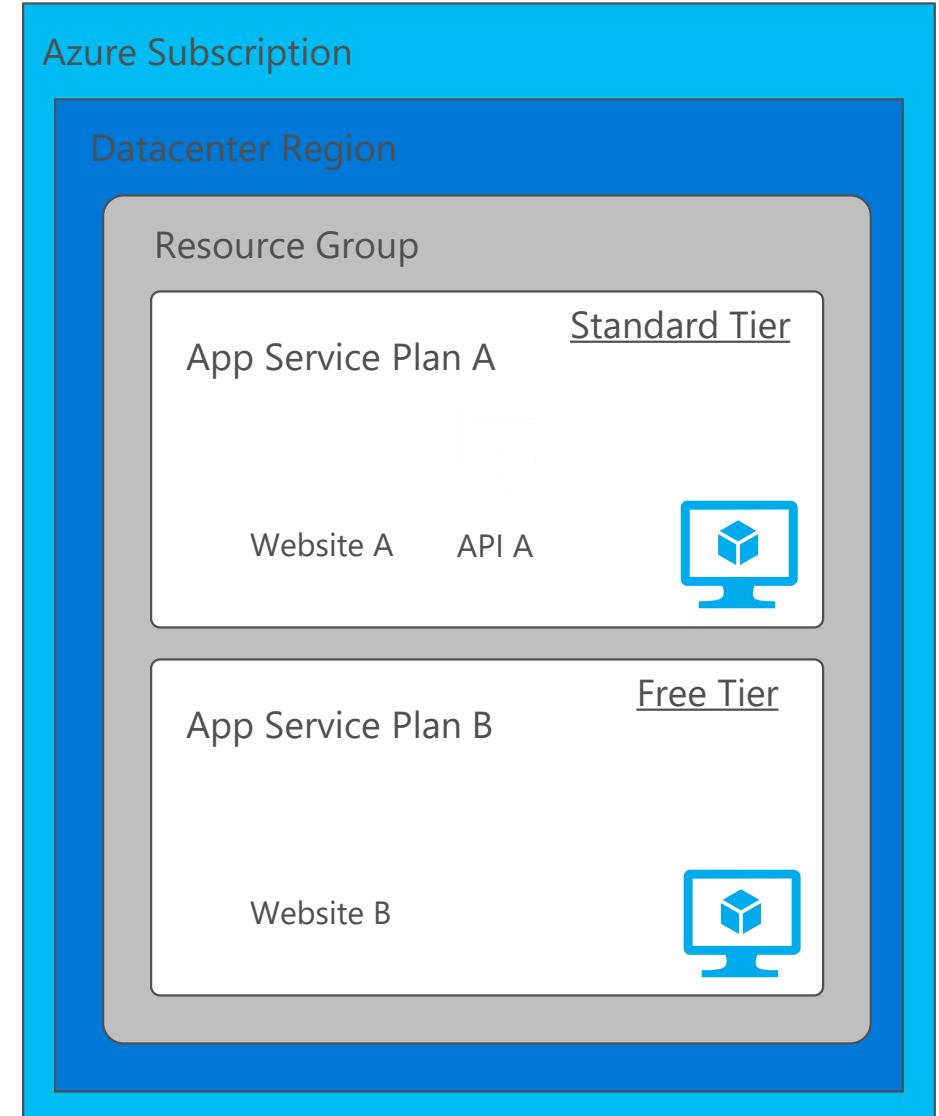
Built for DevOps

Agility through Continuous Deployment

- Remote Debugging w/ Visual Studio
- Site Staging Slots /Preview
- Traffic Routing
- Continuous Integration/Deployment
- Git/ Hub, Visual Studio Team Services
- App & Site Diagnostics
- Site Extensions/ Gallery
- .NET, PHP, Python, Node, Java, Go
- Framework Installer
- Browser-based editing
- Logging and Auditing
- Admin-Site
- Support Portal
- Web Jobs / SDK 1.1
- Recommendation Engine
- Site Cloning

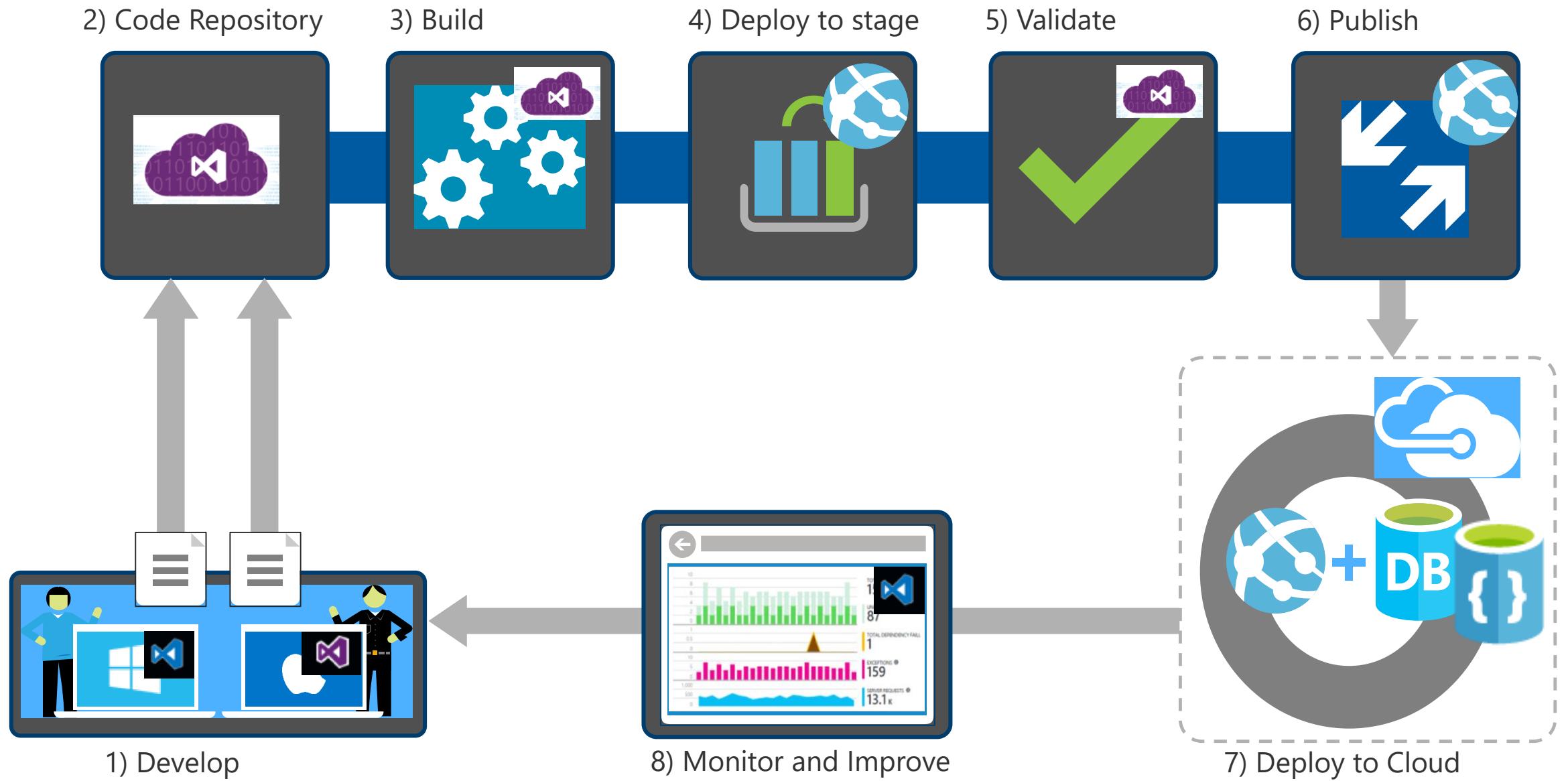
App Service Plans

- Web apps need to be in the same subscription, resource group and region to share a app service plan
- A web app can only be associated with one app service plan
- All web apps that use the same app service plan will be placed on the same resource hardware
- You can have multiple app service plans in a single resource group to allow for different capacity needs

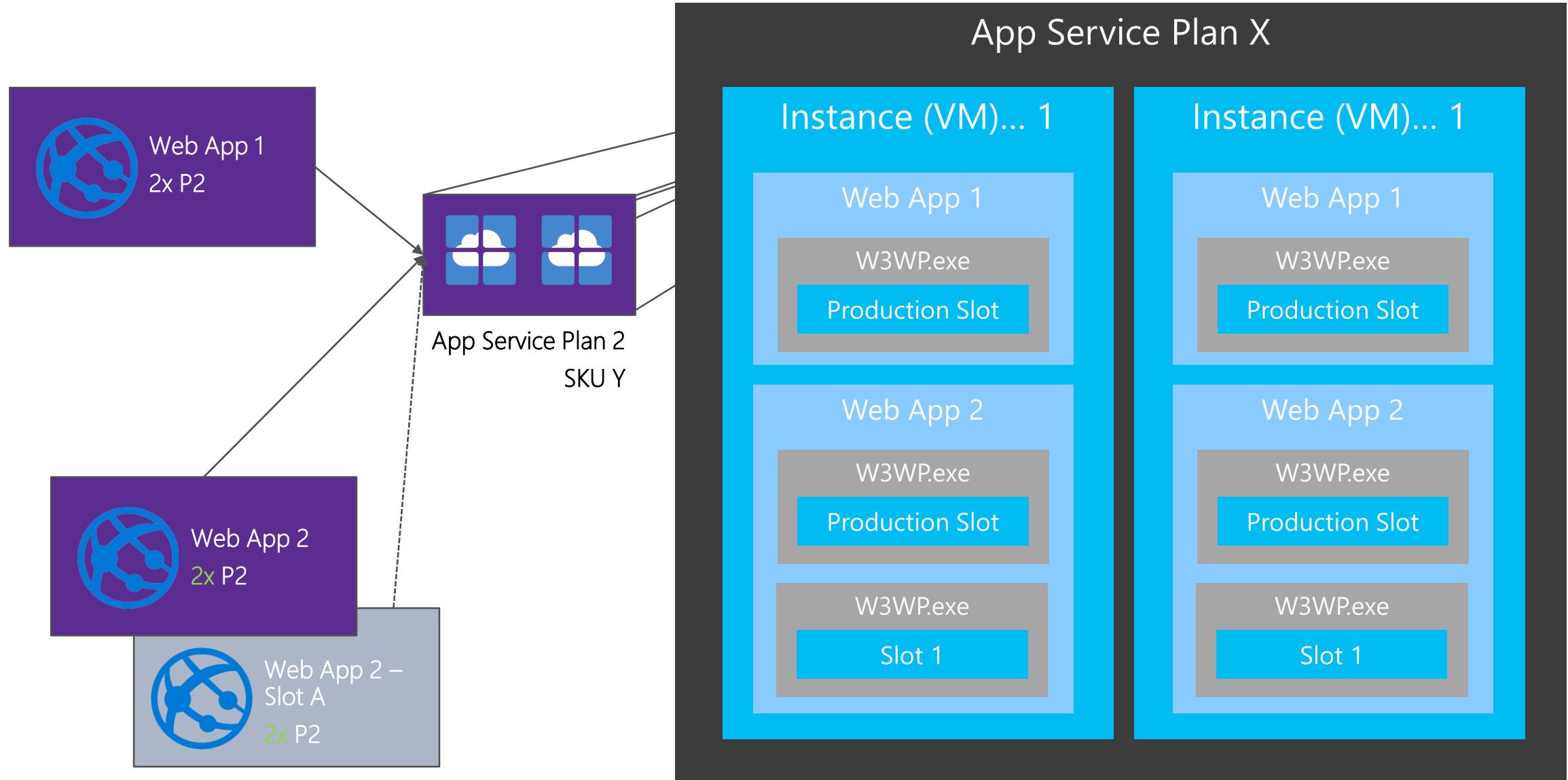


Demo

App Service – Web Deploy Deployment



App Service Plans, Apps & Slots



Demo

Site Slots, Slot Settings and Swap Options

Staged Deployment

- Deploy your website to a separate deployment slot instead of the default production slot
- Available in the Standard or Premium app service plan
- Swap the sites and site configurations between two deployment slots, including the production slot
- Benefits:
 - You can validate website changes in a staging deployment slot before swapping it with the production slot
 - After a swap, the slot with previously staged site now has the previous production site
 - Deploying a site to a slot first and swapping it into production ensures that all instances of the slot are warmed up before being swapped into production
 - Four deployment slots in addition to the production slot are supported for each website in the Standard plan
 - 19 deployment slots in addition to the production slot are supported for each website in the Premium plan

Configuration for Deployment Slots

- **Settings that are swapped:**
 - General settings - such as framework version, 32-bit / 64-bit, Web sockets
 - App settings (can be configured to stick to a slot)
 - Connection strings (can be configured to stick to a slot)
 - Handler mappings
 - Monitoring and diagnostic settings
 - WebJobs content
- **Settings that are not swapped:**
 - Publishing endpoints
 - Custom Domain Names
 - SSL certificates and bindings
 - Scale settings
 - WebJobs schedulers

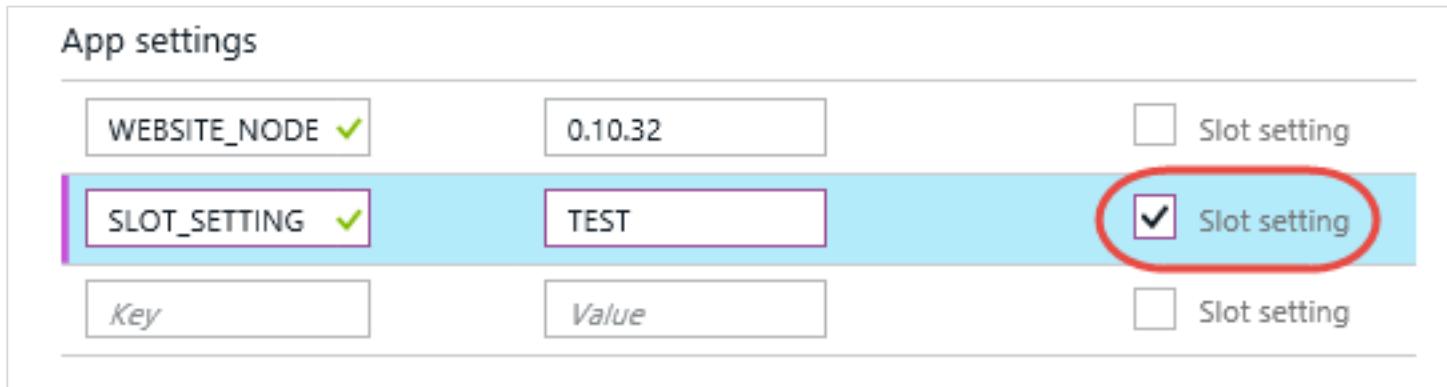
Processes are gracefully recycled upon Configuration changes (app settings)

Preventing Slot Swapping for specific settings

By selecting the slot setting check box, you convey that you want this particular setting to not swap

App settings

WEBSITE_NODE ✓	0.10.32	<input type="checkbox"/> Slot setting
SLOT_SETTING ✓	TEST	<input checked="" type="checkbox"/> Slot setting
Key	Value	<input type="checkbox"/> Slot setting



Consistent
Management
Layer

Tools



Microsoft Azure



Command Line



Visual Studio

AZURE RESOURCE MANAGER API

RESOURCE MANAGER



Cloud + On-Premises



ADFS
AAD

RESOURCE PROVIDER CONTRACT

Provider
Rest Points



Imperative vs Declarative

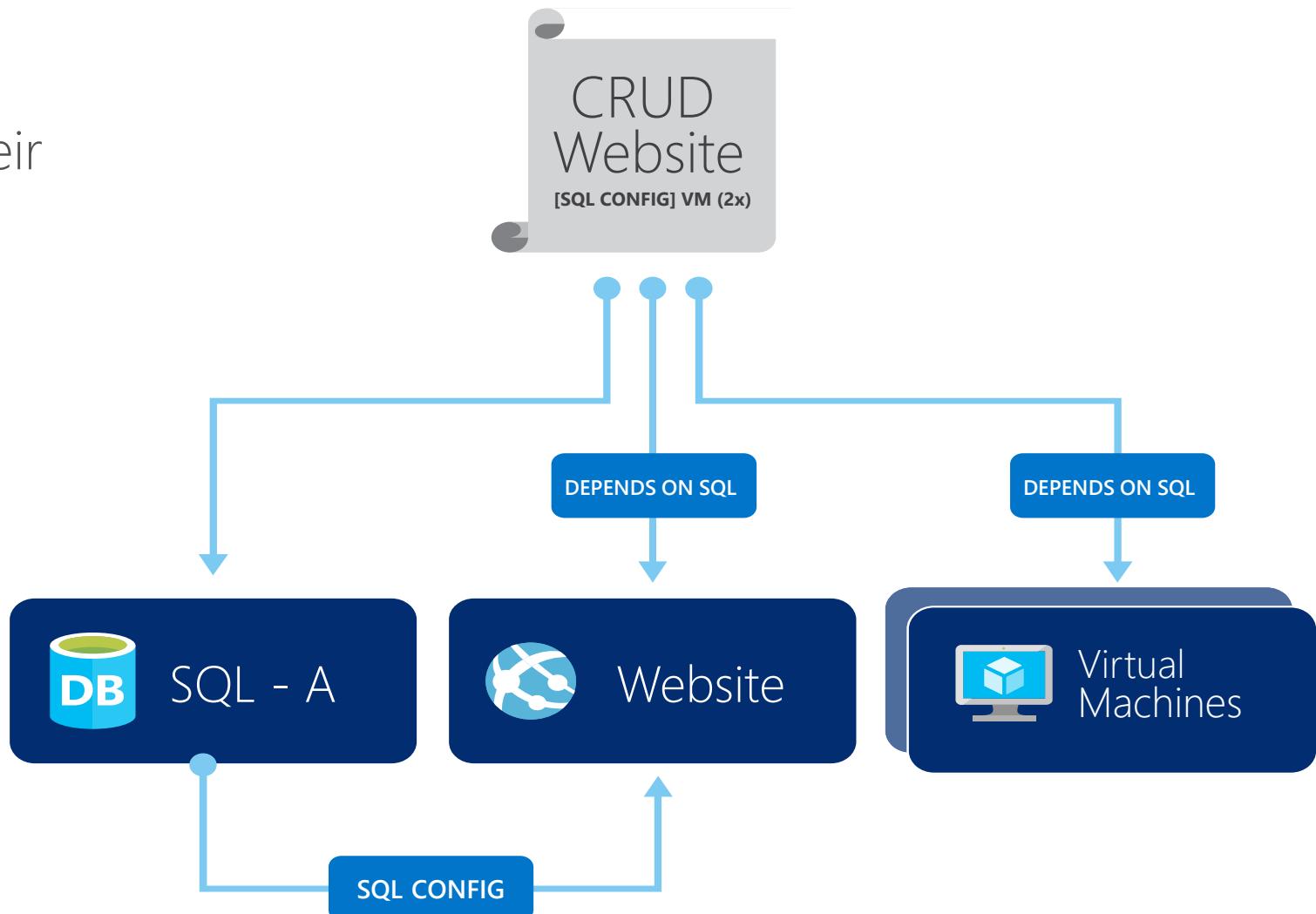
imperative
or
declarative

```
New-AzureVM -VM $myVM  
New-AzureStorageAccount -StorageAccountName $acct  
Set-AzureVNetConfig -ConfigurationPath -Path
```

```
{  
  "$schema": "https://.../deploymentTemplate.json#",  
  "contentVersion": "1.0.0.0",  
  "parameters": {},  
  "variables": {},  
  "resources": [],  
  "outputs": {}  
}
```

Resource Templates

- Declarative, model based specification of resources and their configuration / code/ extensions
- Idempotent and 'replayable'
- Source file, checked-in
- Parameterized input/output



Template Format

The syntax of the template is JSON.

Simplest structure and elements:

```
{  
  "$schema": "http://schema.management.azure.com/schemas/2015-01-  
01/deploymentTemplate.json#",  
  "contentVersion": "",  
  "parameters": { },  
  "variables": { },  
  "resources": [ ],  
  "outputs": { }  
}
```

ARM Template Deployment

- PowerShell
- Portal
- Visual Studio
- Azure CLI
- REST API



```
New-AzureRmResourceGroupDeployment -Name  
ExampleDeployment -ResourceGroupName  
ExampleResourceGroup -TemplateFile  
<PathToTemplate> -TemplateParameterFile  
<PathToParameterFile>
```

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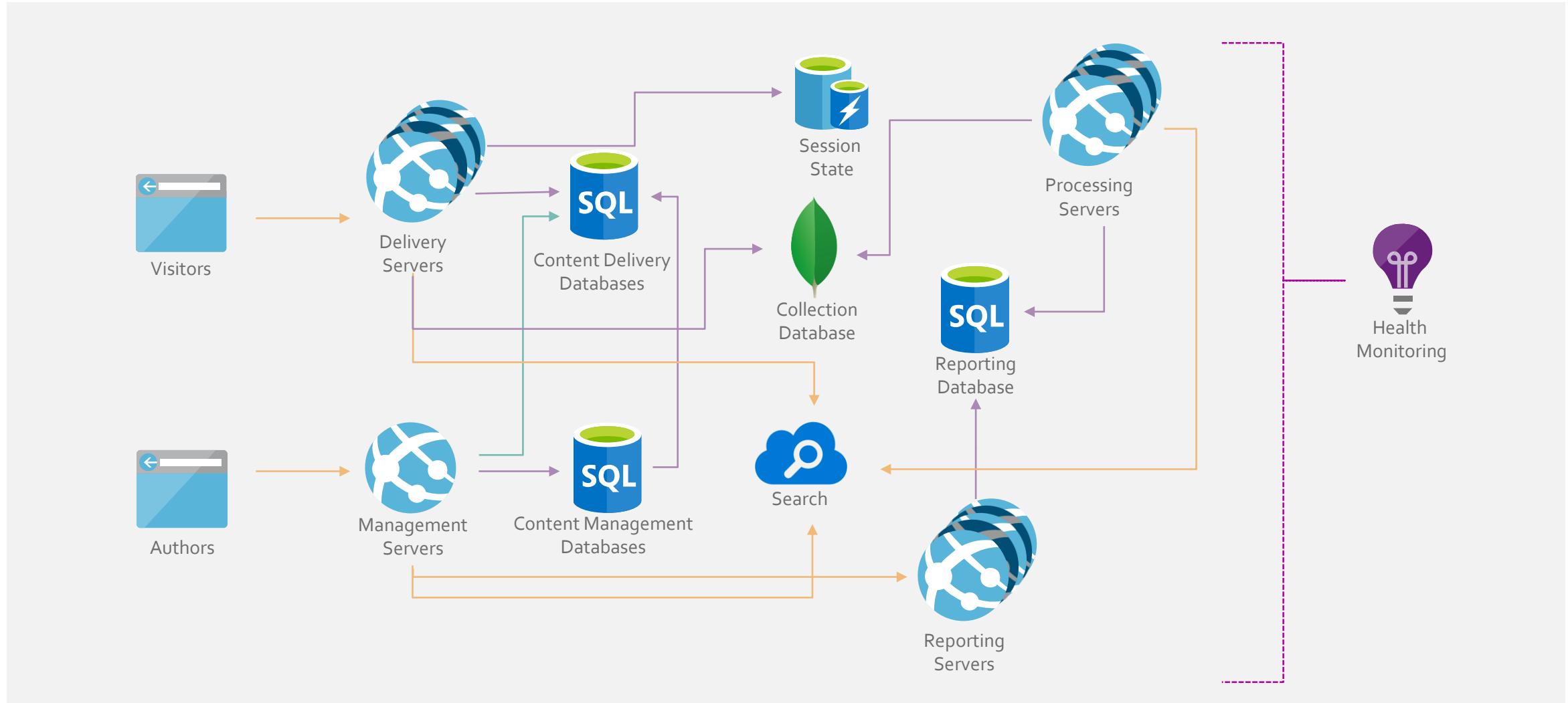
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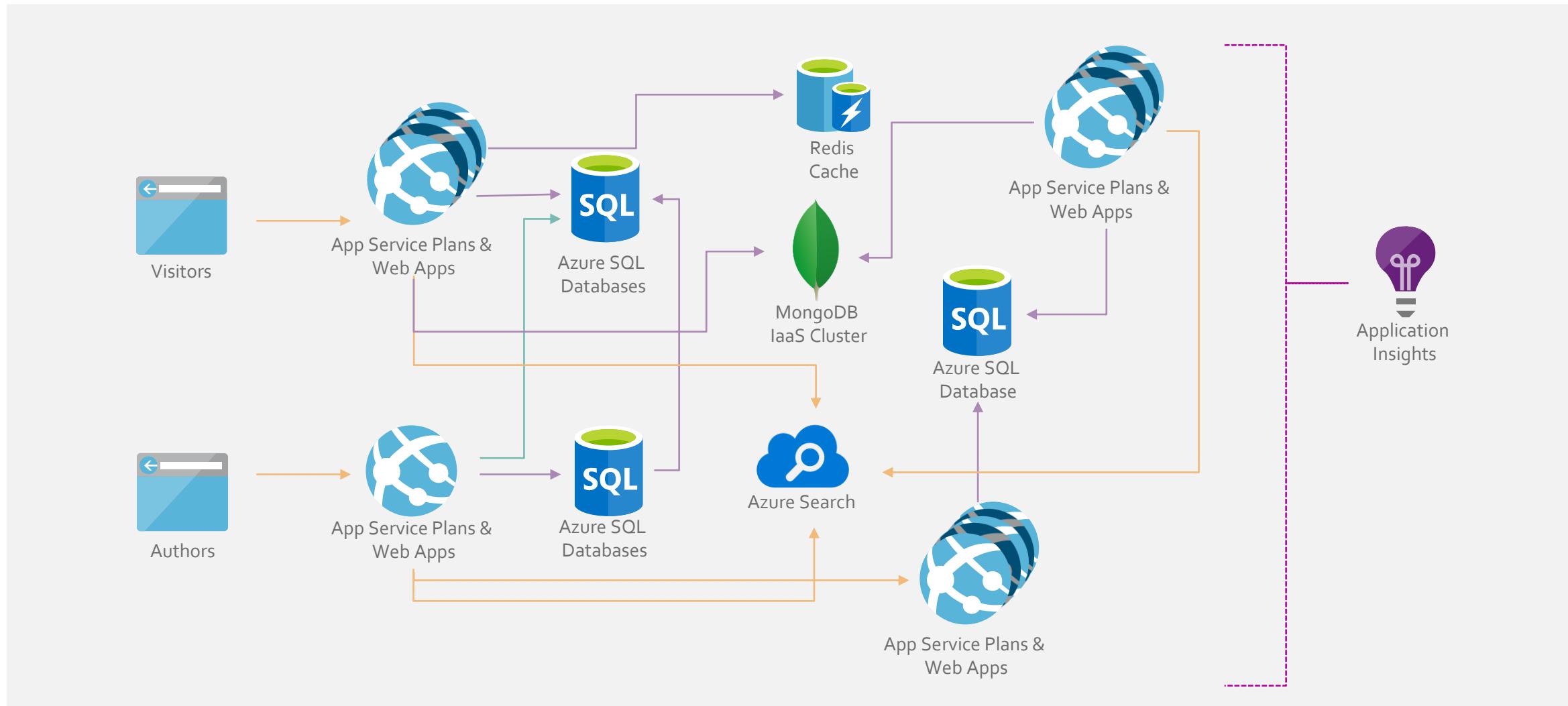
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Sitecore PAAS Topology Example



Sitecore Azure Services



Sitecore Azure Resources - Core



Web Apps

Sitecore uses separate Web Apps to host the Content Management, Content Delivery, Reporting, and Processing web site roles. Each Web App is placed in its own App Service Plan to enable it to scale separately.

Minimum Tier / Size
• Standard S2



Application Insights

Sitecore uses Application Insights for all of its Health Monitoring needs. Application Insights can be used to search for all Sitecore logs, performance counters, custom telemetry, and dependant requests.

Minimum Tier / Size
• Standard



Azure Search

Sitecore uses Azure Search as its default search engine. Azure Search is a fully managed search-as-a-service that offers scalable full-text search.

Minimum Tier / Size
• Standard S1



Azure SQL

Sitecore uses Azure SQL to store all of its content and analytics databases. Databases can be split across management and delivery database servers.

Minimum Tier / Size
• Standard S2



Azure Redis Cache

Sitecore uses Azure Redis Cache as its default session state backend. The session state component stores information from active visitors to be used by the content delivery and personalization process.

Minimum Tier / Size
• Standard C1



MongoDB

The collection database (MongoDB) is the primary storage for all analytics information and the registry of contacts and engagement automation states. In Azure it is recommended to use a Virtual Machine to host MongoDB or use a service such as mLab.

Sitecore Azure Resources - Supporting



Traffic Manager

Microsoft Azure Traffic Manager allows you to control the distribution of user traffic for service endpoints in different datacenters.

Minimum Tier / Size

- Default



Azure CDN

Improve the User Experience. Azure CDN improves performance and increases availability with global coverage and massive scalability from multiple providers with choices between Akamai and Verizon.



Azure Key Vault

Increase security and control over keys and passwords.



Visual Studio Team Services

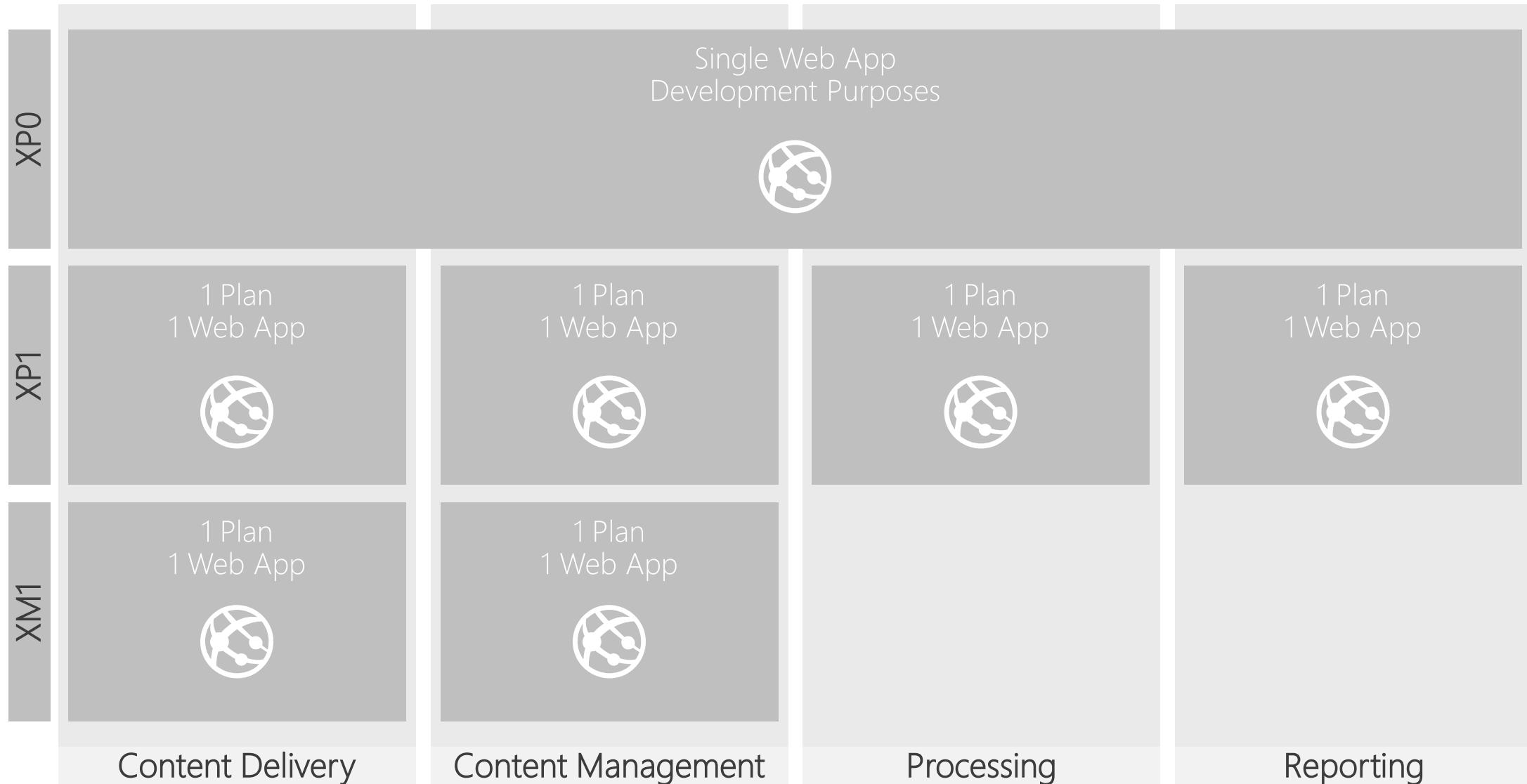
Remove bottlenecks and ship faster with Devops tools in Visual Studio Team Services. Plan, code, build, test and release tools for your software lifecycle..



Azure Marketplace

Sitecore allows for the XM1 topology to be deployed from within the Azure Marketplace.

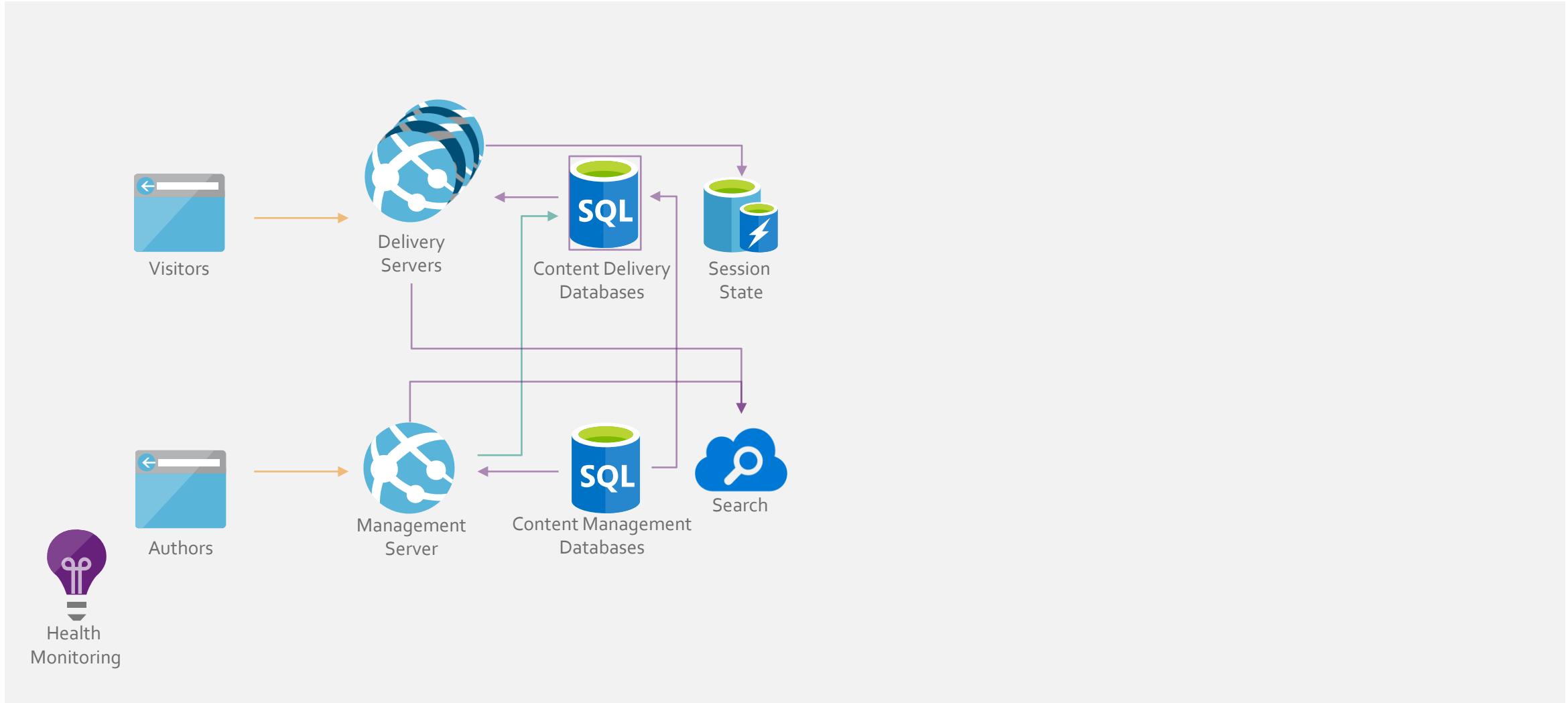
Sitecore Topologies



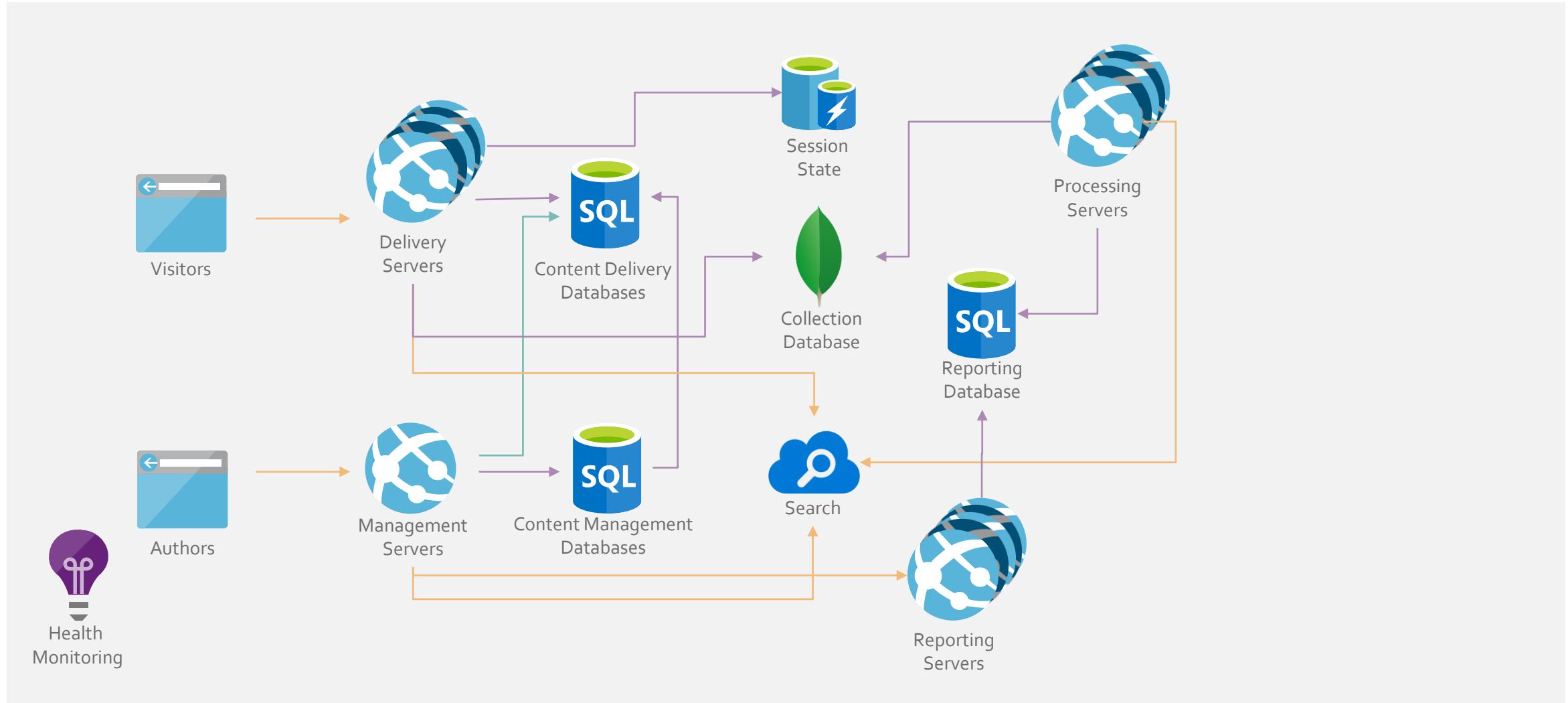
Architectural Considerations

- Session State: Azure Redis Cache
 - Used for distributed session state
 - Works on or off-premise
 - Much faster than SQL Server, Azure SQL, MongoDB, In-Role Cache
- Search: default is Azure Search
 - Only PaaS Search solution on Azure
 - Creating new Azure Search provider for Sitecore, used by all search indexes
 - Can still use Solr or Coveo if desired
- Health Monitoring: App Insights
 - Standard Sitecore health monitoring tools do not work on Web Apps

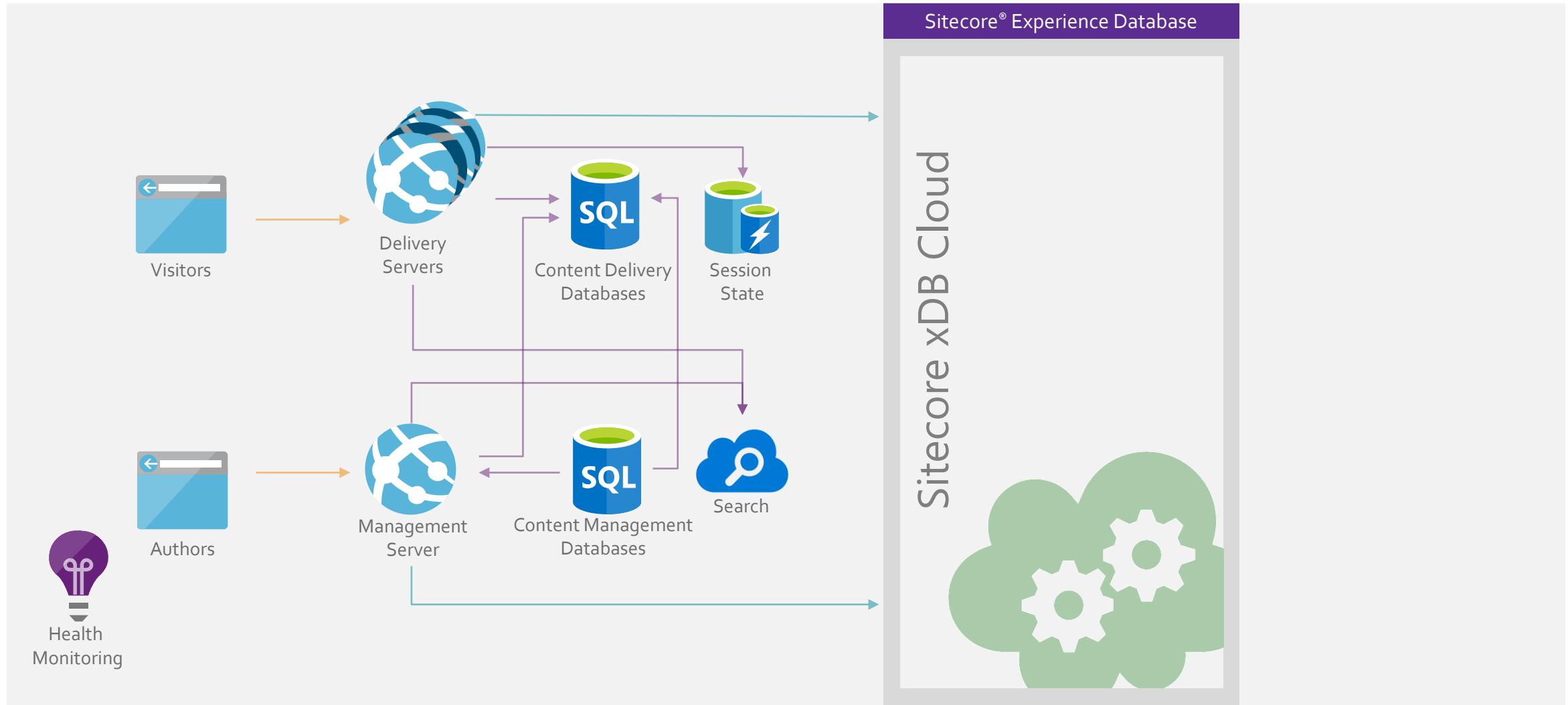
Sitecore® Experience Management™ // Cloud



Sitecore® Experience Platform™ // Cloud



Sitecore® Experience Platform™ with xDB Cloud



Considerations on Platform Choice

- Azure Service limitations:
 - Web Apps has a max of 8 cores & 14 Gigs of RAM per instance
 - Azure Search has a limit of 1000 fields per index
 - Azure SQL Database has a limit of 1TB per database
- Active-Active Geo replication
- Not all Sitecore modules are supported currently

Sitecore XP on Microsoft Azure Compatibility

Component or Module Name	Sitecore XP 8.2 u1+
Experience Platform (xP)	✓
Experience Database (xDB)	✓
Experience Editor	✓
Campaign Creator	✓
Content Testing	✓
Experience Analytics	✓
Device Detection	✓
Path Analyzer	✓
Federated Experience Manager (FXM)	✓
Sitecore Social Connected	✓
List Manager	✓
Sitecore Experience Accelerator 1.2+	✓
Data Exchange Framework 1.2+	✓
Dynamics CRM Connect 1.2+	✓

Component or Module Name	Sitecore XP 8.2 u1+
Active Directory	✗
Print Experience Manager (PXM)	✗
Dynamics CRM Campaign Integration	✗
Email Experience Manager (EXM)	✗
SharePoint Connect	✗
Sitecore Media Framework	✗
Web Forms for Marketers (WFFM)	✗
Sitecore Provider for Data Exchange Framework	✗
Dynamics CRM Provider for Data Exchange Framework	✗

More information here: <https://kb.sitecore.net/articles/201557>

Lunch Break – 45 minutes

12.45 – 3.15 Provisioning, Monitoring & Operations
3.15 – 3.45 Sizing and Roadmap

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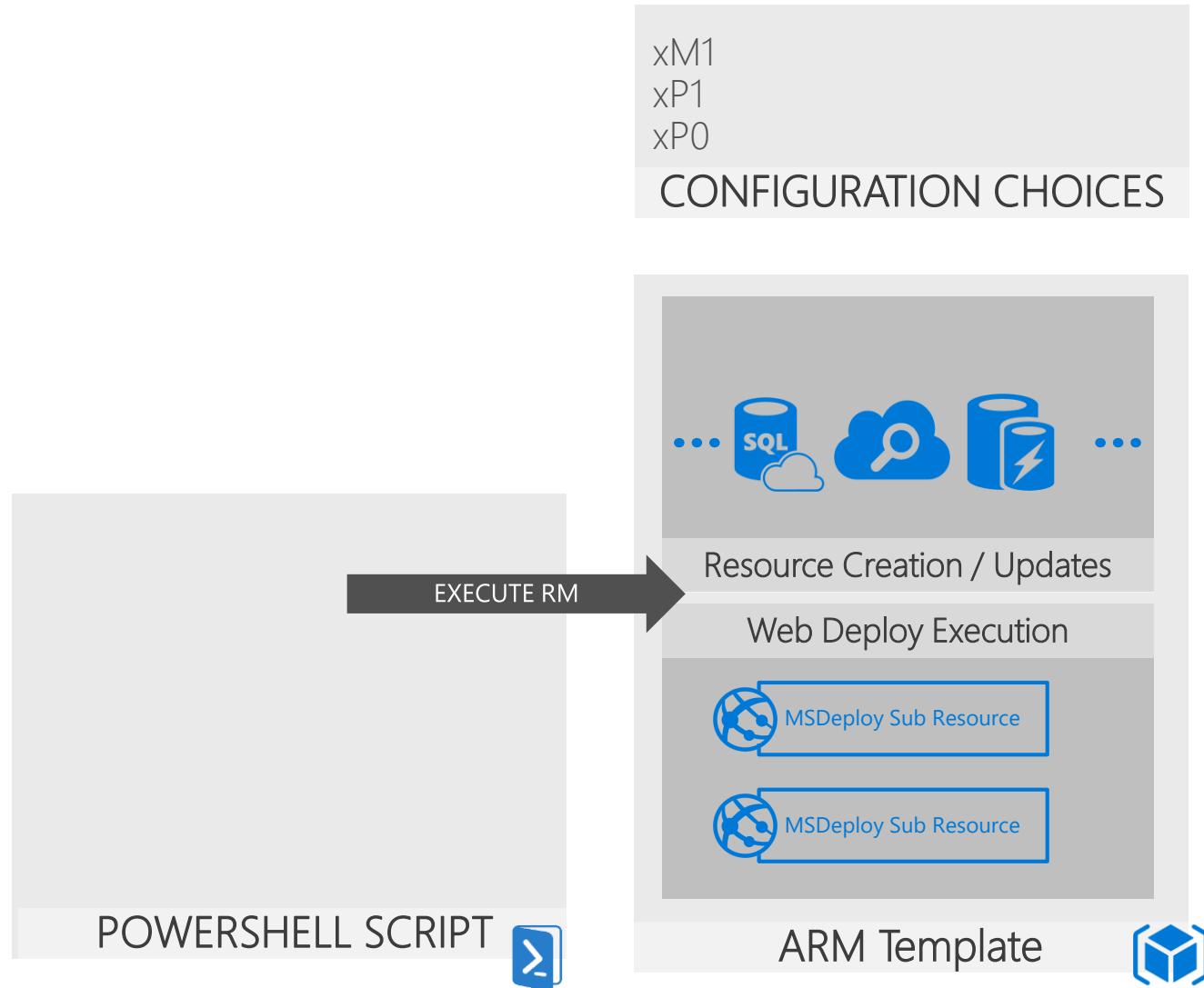
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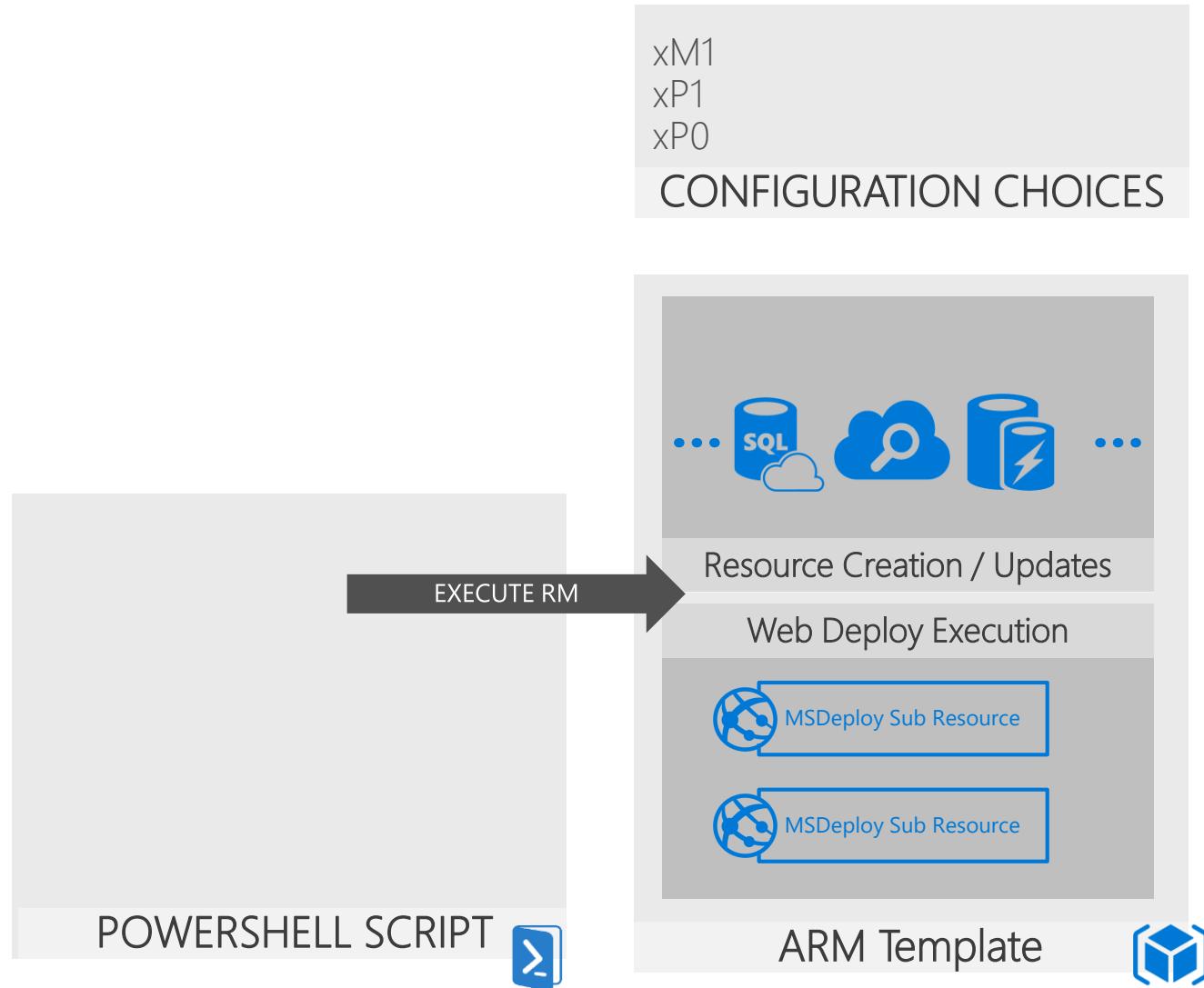
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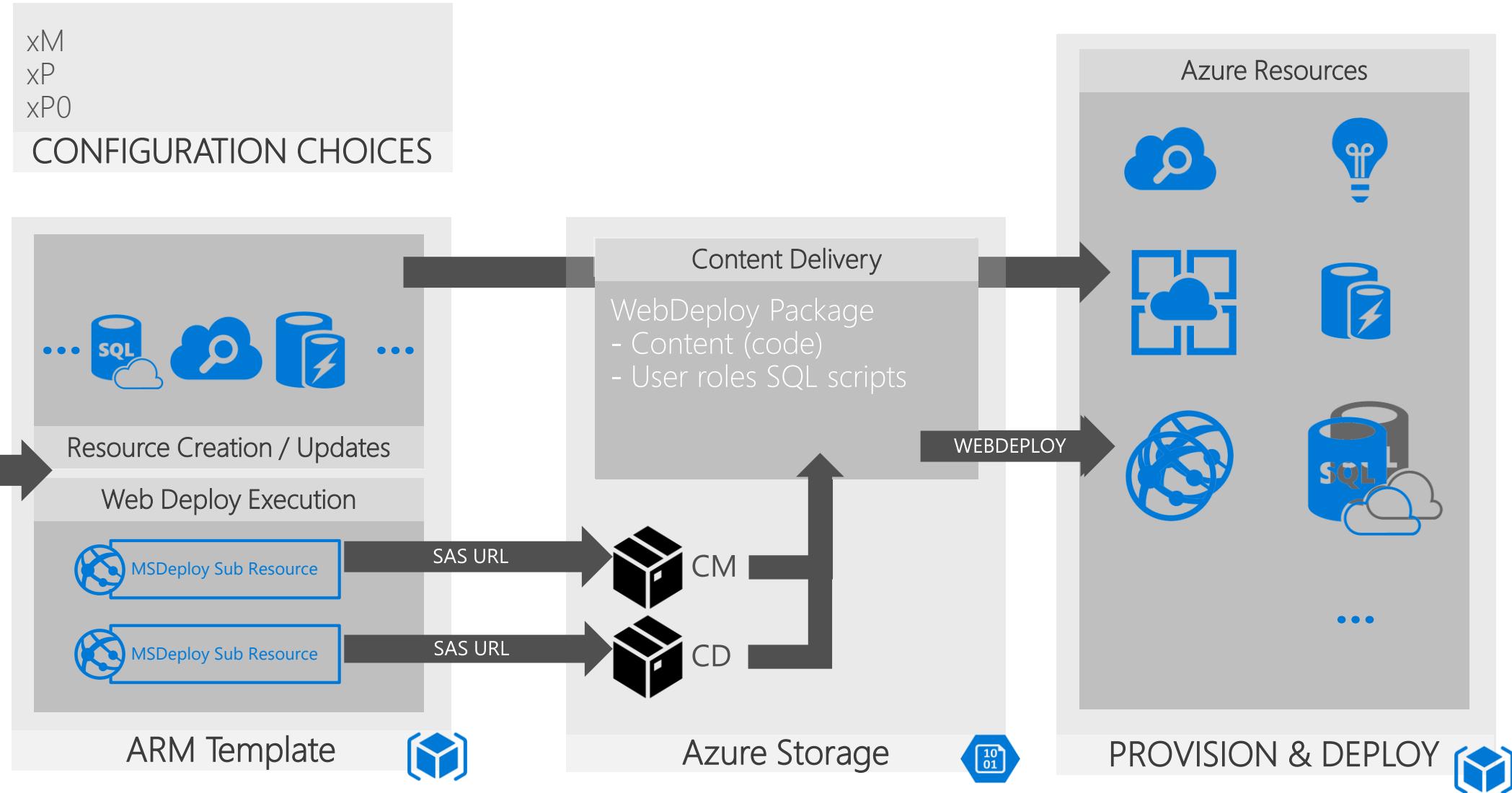
Sitecore 8.2u1 PowerShell, ARM and Packages



Sitecore 8.2u1 PowerShell, ARM and Packages



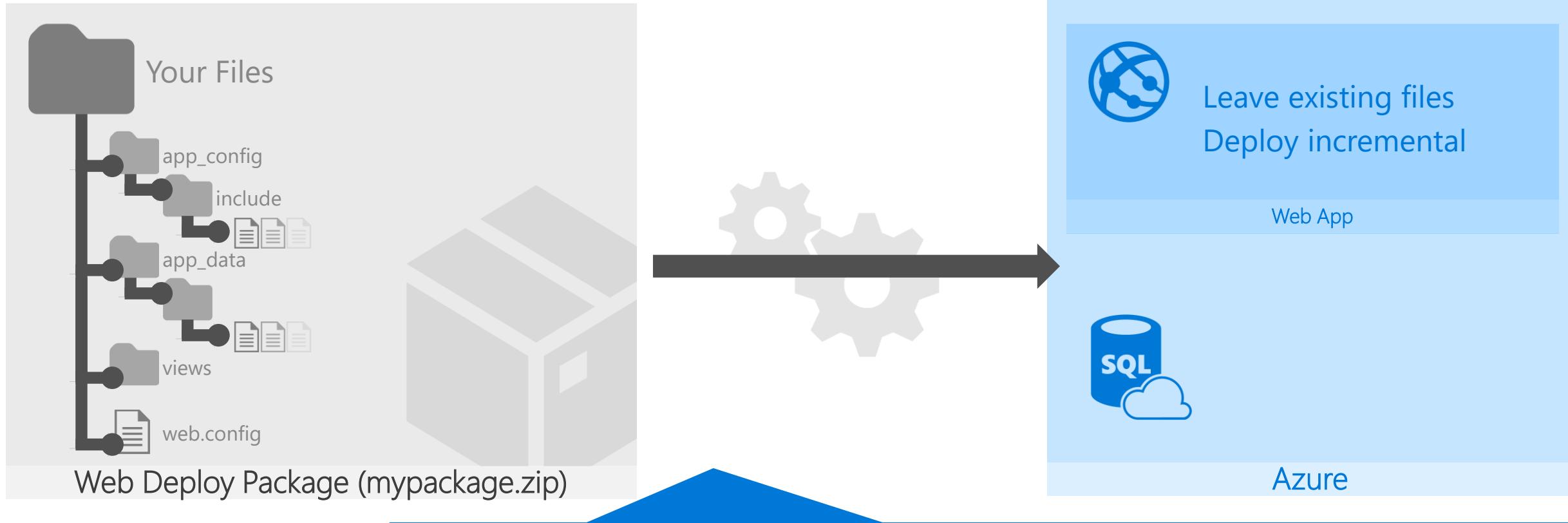
Sitecore PowerShell, ARM and Packages



Demo

Sitecore ARM Templates

Using Web Deploy for incremental deployment



```
msdeploy.exe -verb:sync -source:package=c:\myPackage.zip -dest:auto  
-setparam:"[paramname]""=[paramvalue]"  
-setparam:"[paramname]""=[paramvalue]"  
...  
-enableRule:DoNotDeleteRule
```

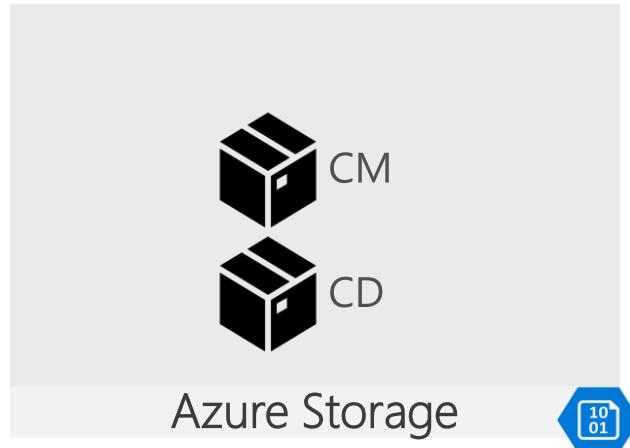
Demo

Deploying Sitecore customizations
Using incremental Web Deploy

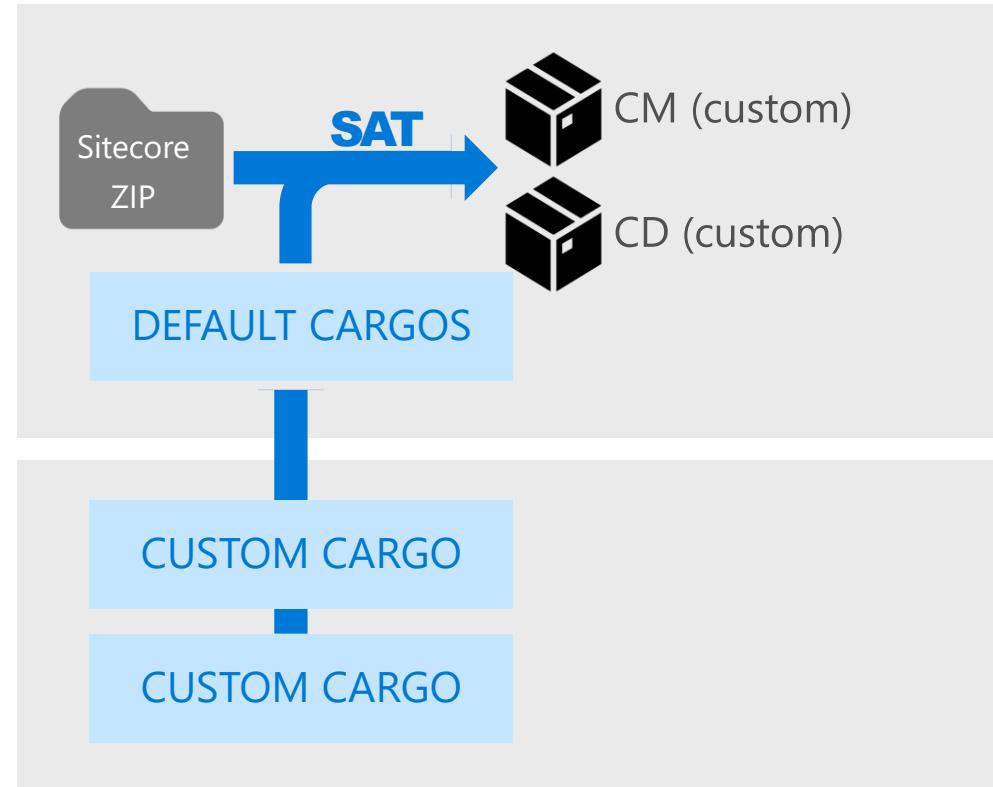
Introducing Sitecore Azure Toolkit

Assume XM1.

This is what you get:

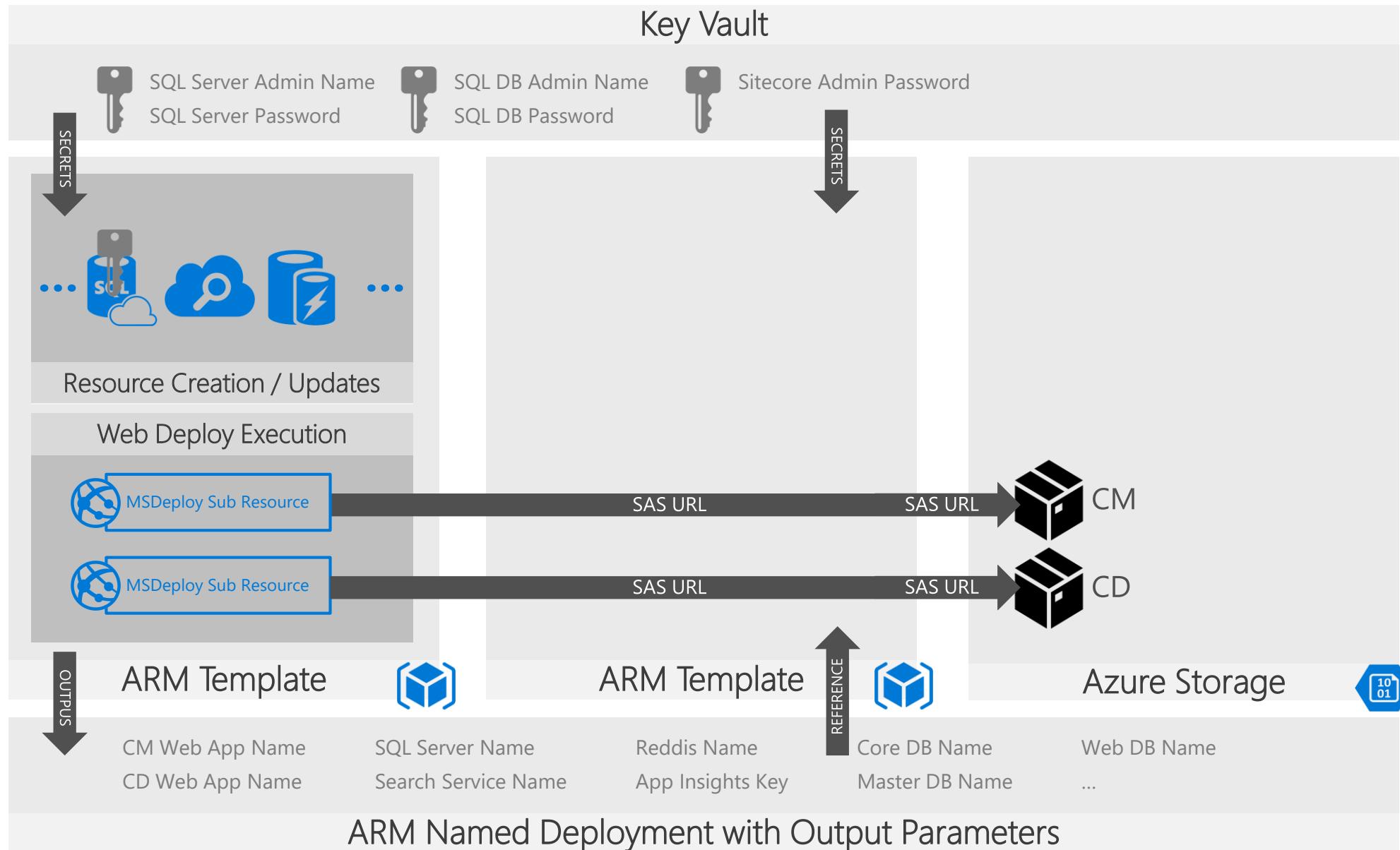


But what if you need another baseline ?



... or added your own (role-based) customizations ?

Separate Provisioning from Deployment

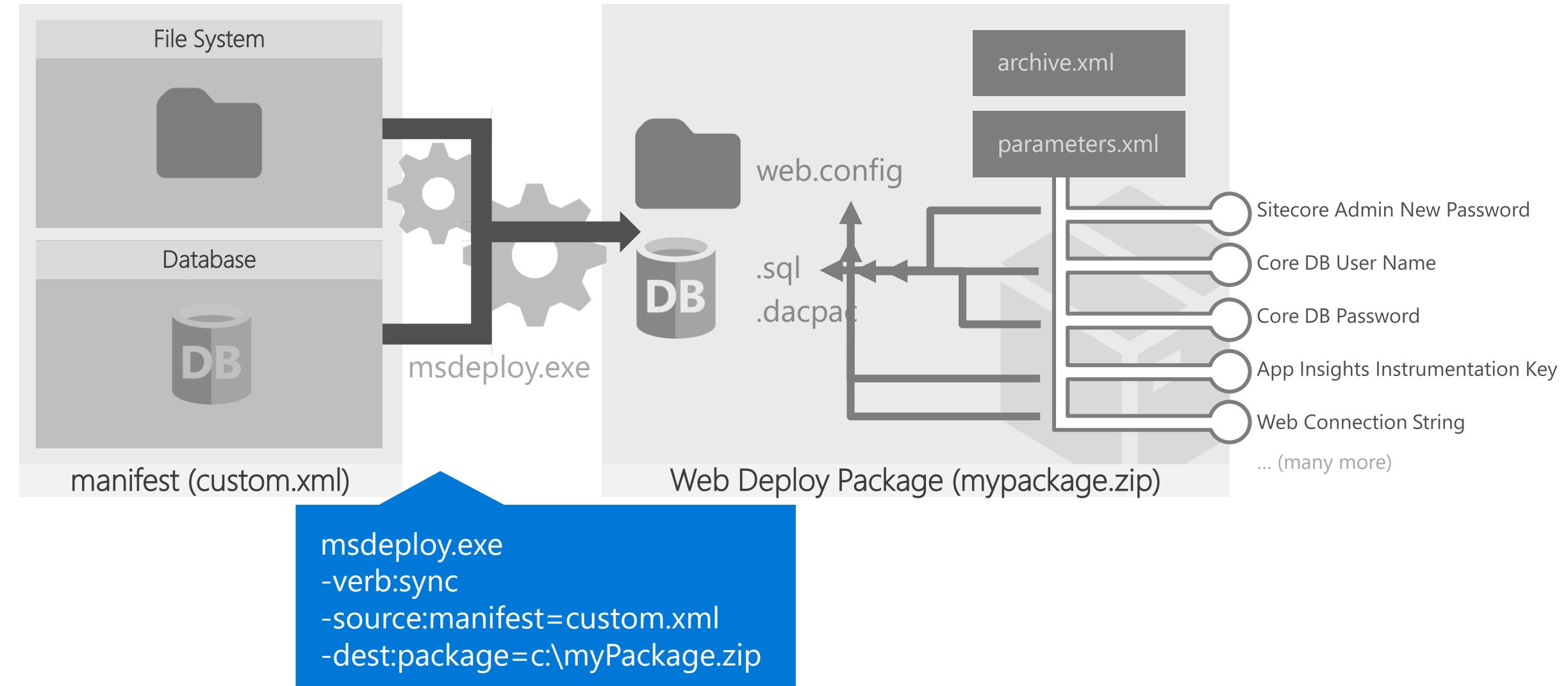


Demo

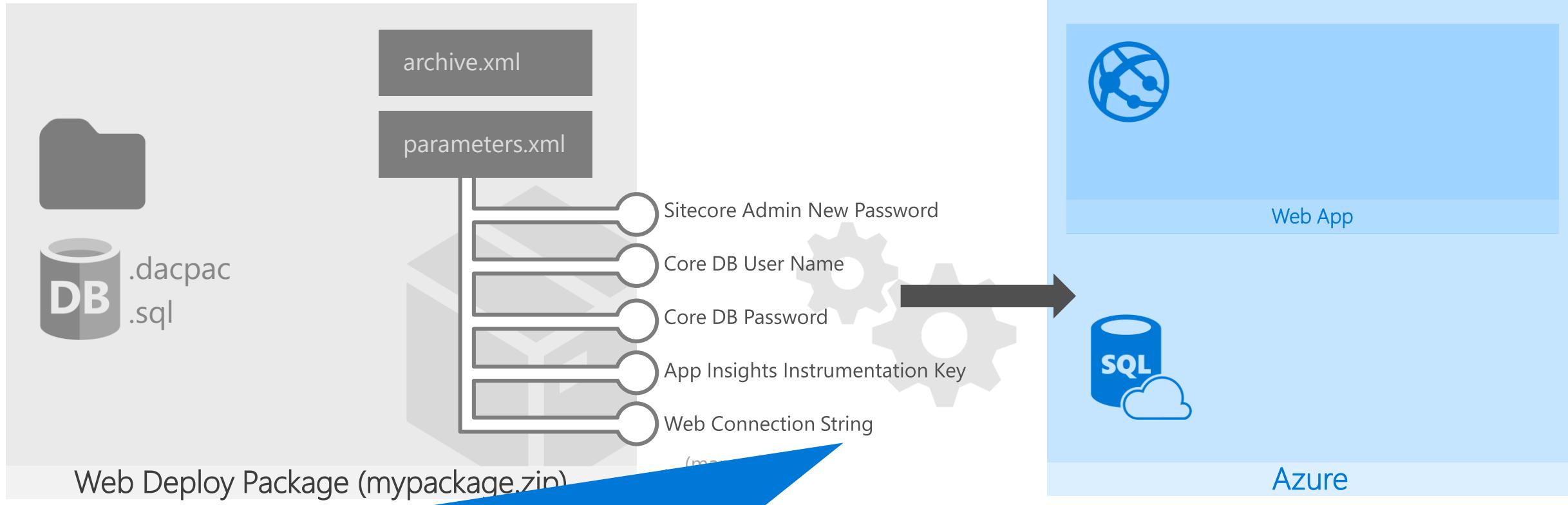
Show customized ARM templates:

- Provisioning with Key Vault
- Deployment with Key Vault

A closer look into Web Deploy - creation



A closer look into Web Deploy - deployment



```
msdeploy.exe -verb:sync -source:package=c:\myPackage.zip  
-dest:auto,computerName=https://{2}msdeploy.axd?site={3},userName={4},password={5},authType=Basic  
-setparam:"Sitecore Admin New Password"="Pass@word1"  
-setParam:"Core DB User Name"="CoreDBUser"  
-setParam:"Application Insights Instrumentation Key"="xxxx"  
... (many more)
```

ARM Template

```
{  
  "type": "Microsoft.Web/sites",  
  "name": "[variables('cmWebAppNameTidy')]",  
  "apiVersion": "[variables('webApiVersion')]",  
  "properties": {},  
  "location": "[parameters('location')]",  
  "resources": [  
    {  
      "type": "slots",  
      "name": "cm-preprod",  
      "apiVersion": "[variables('webApiVersion')]",  
      "properties": {},  
      "location": "[parameters('location')]",  
      "dependsOn": [  
        "[resourceId('Microsoft.Web/sites', variables('cmWebAppNameTidy'))]"  
      ],  
      "resources": [  
        {  
          "name": "MSDeploy",  
          "type": "extensions",  
          "location": "[parameters('location')]",  
          "apiVersion": "[variables('webApiVersion')]",  
          "dependsOn": [  
            "[resourceId('Microsoft.Web/sites/slots', variables('cmWebAppNameTidy'), 'cm-preprod')]"  
          ],  
          "properties": {  
            "packageUri": "[parameters('cm_msdeploy_packageurl')]",  
            "dbType": "SQL",  
            "connectionString": "[concat('Data Source=tcp:', reference(concat('Microsoft.Web/sites/', variables('cmWebAppNameTidy')), 'sitecore'), 'Resources/deployments/', 'sitecore'), Password=', parameters('sqlserver_password'). ':')]",  
            "setParameters": {  
              "Application Path": "[variables('cm_msdeploy_appPath')]",  
              "Sitecore Admin New Password": "[parameters('cm_msdeploy_newAdminPassword')]",  
              "Core DB User Name": "[parameters('cm_msdeploy_coreDBUser')]",  
              "Core DB Password": "[parameters('cm_msdeploy_coreDBPassword')]",  
              "Core Admin Connection String": "[parameters('cm_msdeploy_coreAdminConnectionString')]",  
              "Core Connection String": "[concat('Data Source=tcp:', reference(concat('Microsoft.Web/sites/', variables('cmWebAppNameTidy')), 'sitecore'), 'Resources/deployments/', 'sitecore'), Password=', parameters('sqlserver_login'). ':')]",  
              "Master DB User Name": "[parameters('cm_msdeploy_masterDBUser')]"  
            }  
          }  
        }  
      ]  
    }  
  ]  
}
```

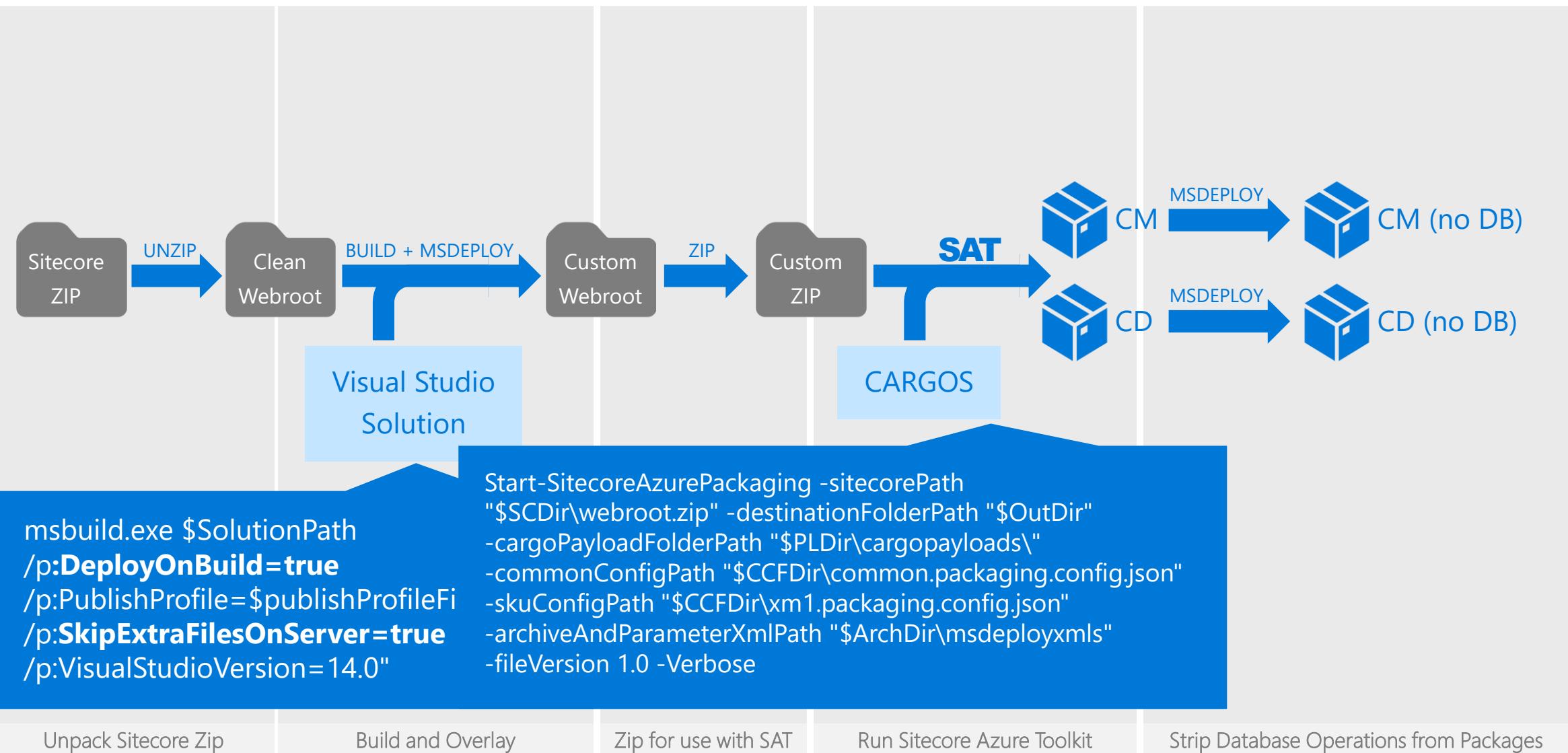
loyment

Web App

Azure

```
msdeploy.exe -verb:sync -source:package=c:\myPackage.zip -dest:auto  
-setparam:"Sitecore Admin New Password"="Pass@word1"  
-setParam:"Core DB User Name"="CoreDBUser"  
-setParam:"Core DB Password"="Pass@word1"  
-setParam:"Application Insights Instrumentation Key"="xxxx"  
... (many more)
```

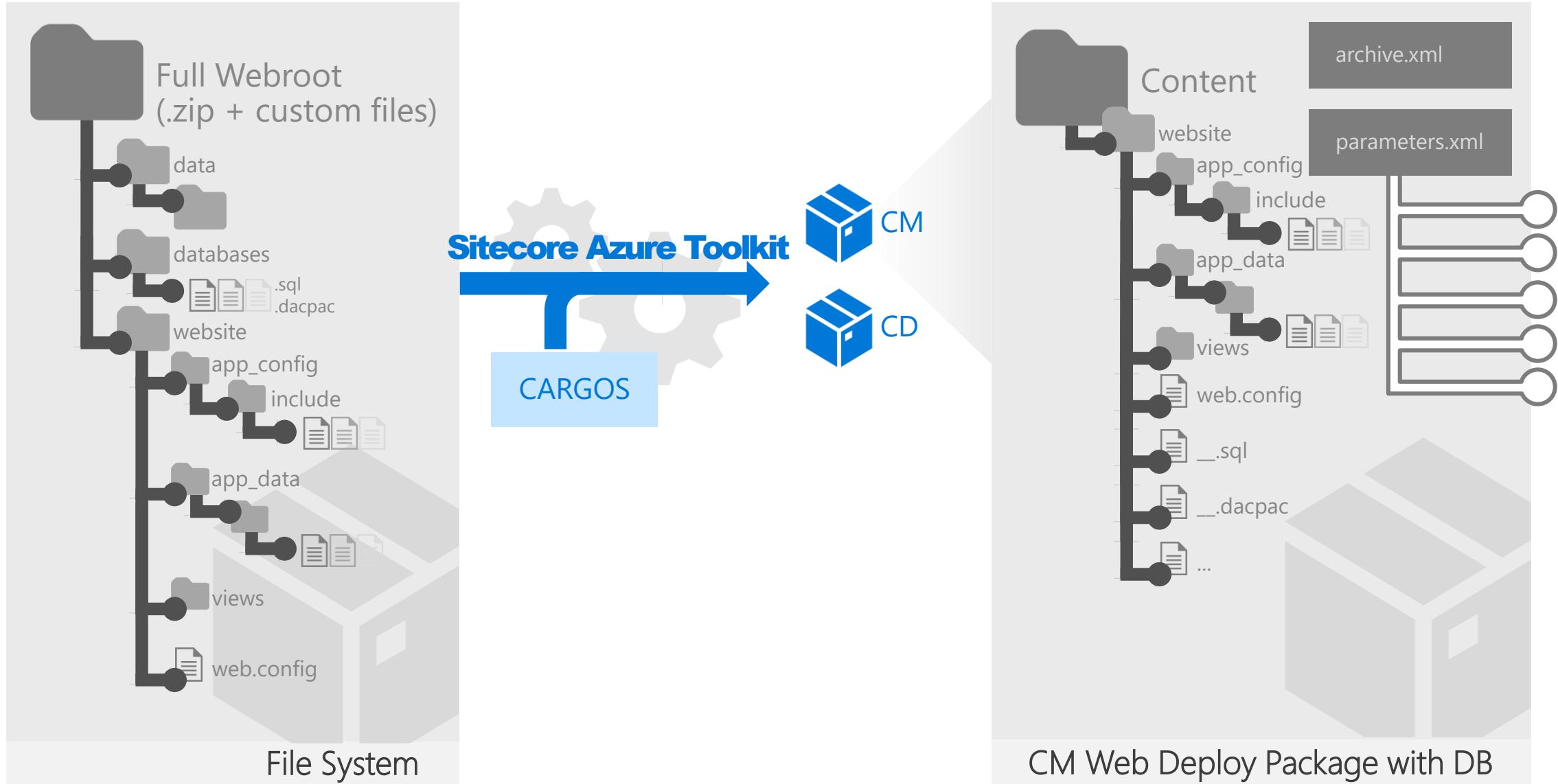
Creating Packages for Continuous Deployment



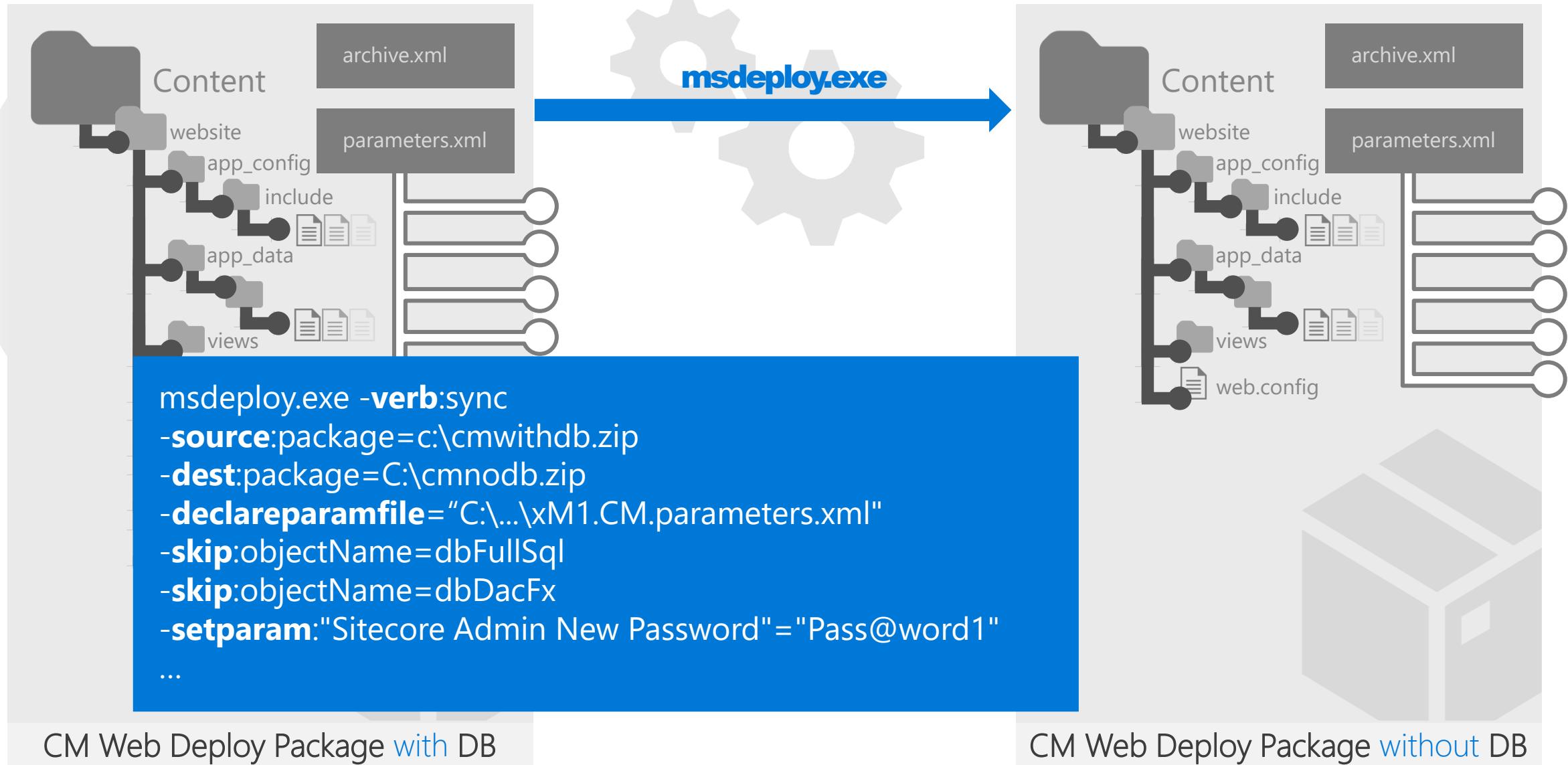
Optional Demo

Package creation for Continuous Deployment
WebDeploy and Sitecore Azure Toolkit

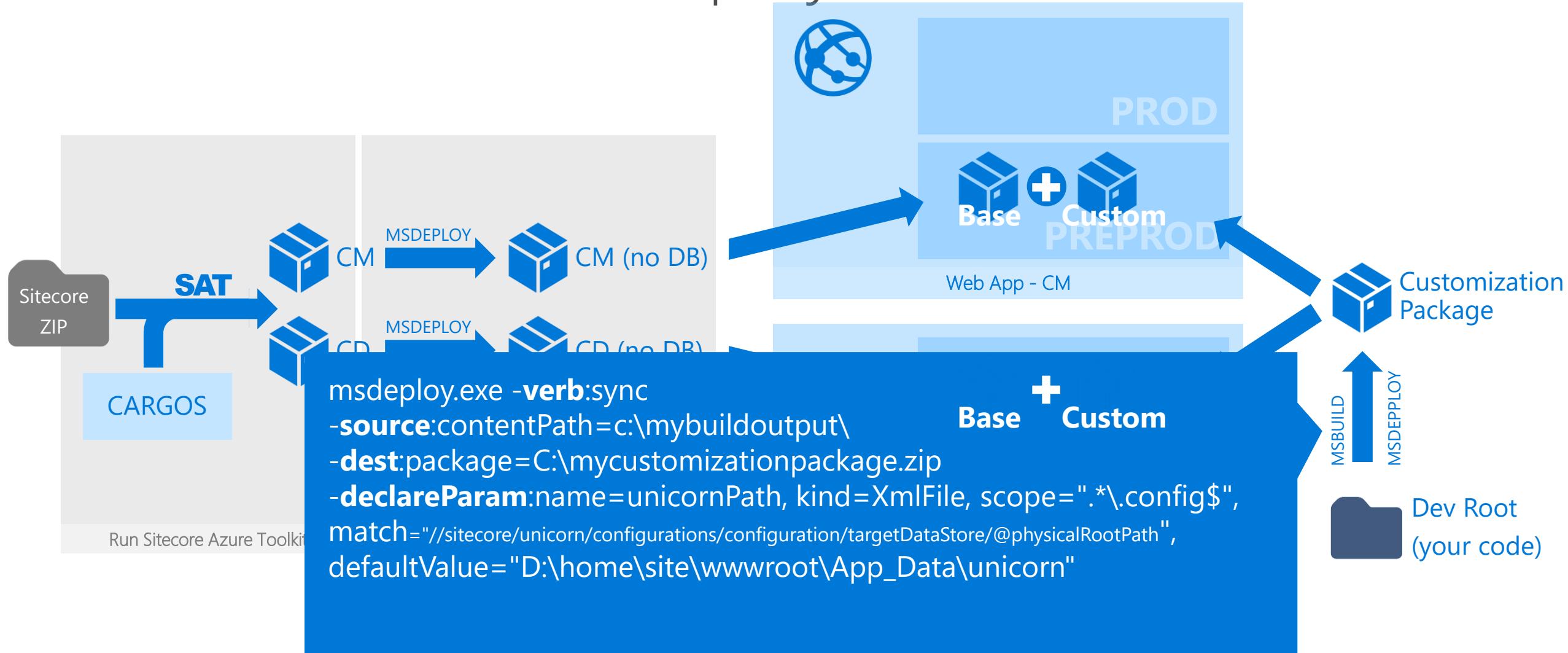
Using Web Deploy for full deployments



Using Web Deploy for full deployments



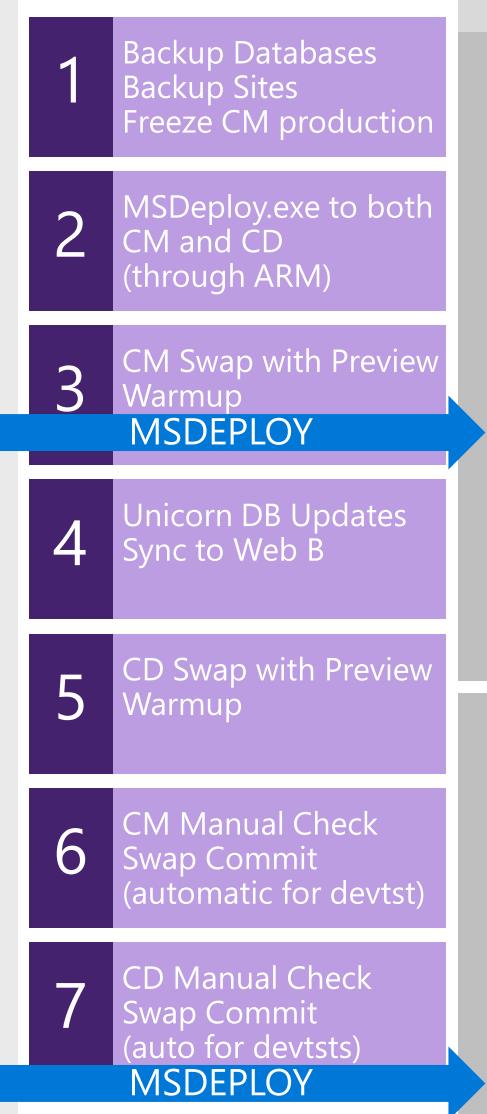
Full + Incremental Deploy for CI



Demo

Full + Incremental deployments using:

- Key Vault
- Site Slots
- Unicorn



Content Management Plan

OLD CM Webroot + Modules + Code
DB Delta (Unicorn)
Config: Publish to WEB A

PREPROD SLOT

CM Webroot + Modules + Code
DB Delta (Unicorn)
Config: Publish to WEB B

PRODUCTION SLOT

OLD CD Webroot + Modules + Code
Config: WEB A

PREPROD SLOT

CD Webroot + Modules + Code
Config: WEB B

PRODUCTION SLOT

Content Delivery Plan

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Azure Monitoring

- Azure Monitor
 - Activity logs on Azure Infrastructure and Diagnostic Logs on Azure resources
 - In preview
- Application Insights
 - Application Performance Monitoring service for web developers
 - Support for .NET, Node.js and J2EE, hosted on-premises or in the cloud
 - Well integrated with App Service
- OMS Log Analytics
 - Part of Operations Management Suit
 - Holistic, cross-cloud IT management solution
 - Azure Monitor data can be routed to Log Analytics
 - Centralized

App Service Specific: Monitoring & Diagnostics

- [Monitoring Basics](#)
 - Using the portal & Kudu
 - Metrics such as CPU, Response Time, HTTP errors, etc.
 - Set alerts for thresholds to email Admins
- [Web Tests](#)
 - Poll endpoint health from around the world (3 locations)
- [Web Server Diagnostics](#)
 - Traditional W3C log file format
 - Detailed error logging. Error info for all HTTP failures (status code >400)
 - Failed request tracking. Includes a trace for application failures
- Application Diagnostics. In-app tracing
(`System.Diagnostics.Trace.TraceError`)
- Deployment Logging
- App Insights: Separate service for deep usage tracking and insights

MONITORING



Application Insights



Alerts



Diagnostics logs



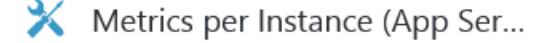
Log stream



Process explorer



Metrics per instance (Apps)



Metrics per Instance (App Ser...)



Live HTTP traffic



Application events

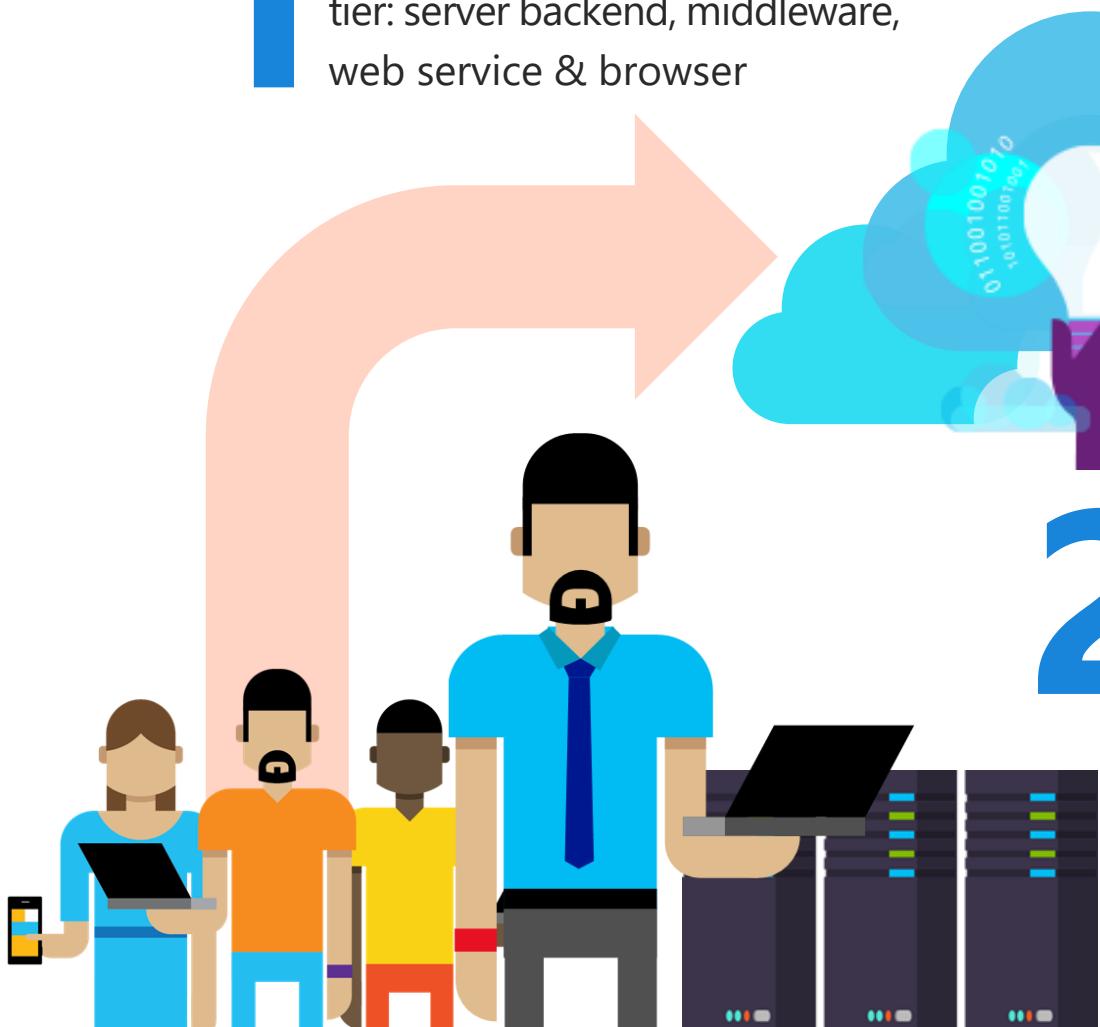


FREB logs

How Application Insights works

1

Telemetry is collected at each tier: server backend, middleware, web service & browser

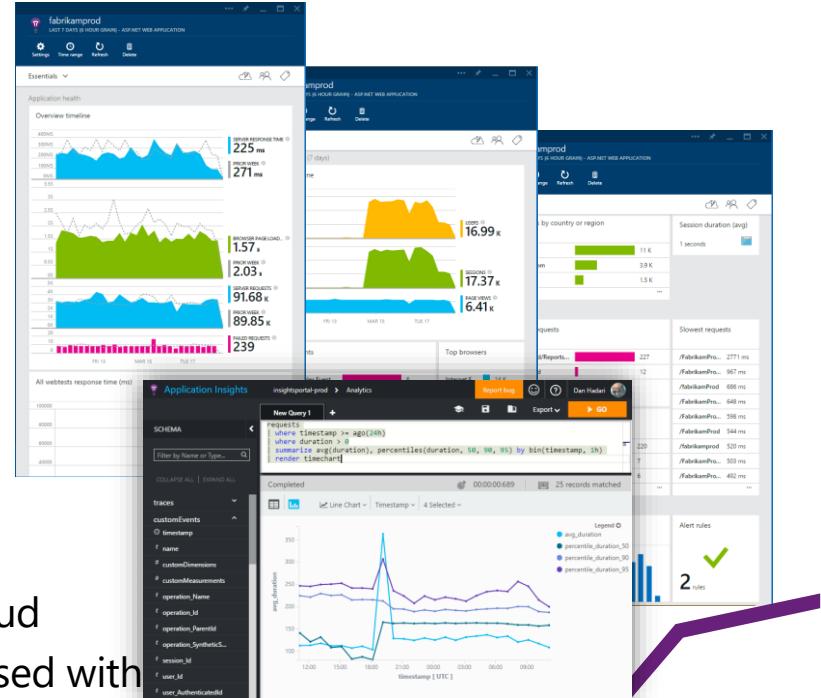


3

Detect & Diagnose problems in Azure Portal; Ask ad-hoc queries in Analytics; Integrate, Extend & Customize

2

Telemetry arrives in the cloud where it is stored & processed with Machine Learning technology



Sitecore Monitoring

App Insights:

Standard Sitecore health monitoring tools do not work in Azure Web Apps and are streamed into Azure Application Insights instead

Sitecore logs & Windows Event Manager

Both appear as Trace entries in the search area of Application Insights

All custom Sitecore log entries will automatically be captured

Performance Counters

Appear as custom metrics and can be viewed under charts, alerts, or analytics

You can add custom performance counters or metrics as part of your installation

Alerts – based on Sitecore or Azure metrics

Application Insights

Metrics Explorer

Last 24 hours (30 minute granularity) - xp20161103-ai - PREVIEW

Add chart Time range Filters Refresh Alert rules More

0.2 0.31 SITECORE CACHING\Path Cache Hits/sec SITECORE CACHING\Path Cache Clearings/sec

No metrics selected

Click here to configure this grid.

Chart details

xp20161103-ai - PREVIEW

Remove chart Edit

- Sitecore.Caching\Cache Clearings / sec
- Sitecore.Caching\Cache Hits / sec
- Sitecore.Caching\Cache Misses / sec
- Sitecore.Caching\Data Cache Clearings / sec
- Sitecore.Caching\Data Cache Hits / sec
- Sitecore.Caching\Data Cache Misses / sec
- Sitecore.Caching\Html Cache Clearings / sec
- Sitecore.Caching\Html Cache Hits / sec
- Sitecore.Caching\Html Cache Misses / sec
- Sitecore.Caching\Path Cache Clearings / sec
- Sitecore.Caching\Path Cache Hits / sec

Search

Last 24 hours (30 minute granularity) - xp20161103-ai - PREVIEW

Time range Filters Refresh Reset Analytics More

Search: info

Filtered on Trace

1.3 K total results between 11/2/2016 7:54 PM and 11/3/2016 7:54 PM

400
300
200
100
0

Nov 3 6 AM 12 PM 6 PM

Filter

PREVIEW Clear

Event Types

- Trace 1.3K
- Request 0
- Page View 0
- Custom Event 0
- Exception 0
- Dependency 0

Properties

Filter Properties...

- Application version
- City
- Client IP address
- Cloud role instance
- Country or region
- Device type
- EventId
- InstanceName
- Message
- Operation Id
- Operation name
- Role
 - Processing 443
 - CM 350
 - CD 300
 - Reporting 222
- SDK version
- Severity level
- State or province

xp20161103-cd-hp - Scale out (App Service plan)

Save Discard

Search (Ctrl+)

Overview Activity log Access control (IAM) Tags Diagnose and solve problems

RESOURCE MANAGEMENT Locks Automation script

GENERAL Properties Apps File system storage Networking

APP SERVICE PLAN Scale up (App Service plan) Scale out (App Service plan)

Average instances 1

Scale by schedule and performance rules

Description Create your own set of rules. Create a schedule that adjusts your instance counts based on time and performance metrics.

Default, scale 1 - 10

Settings Add Rule Add Profile

Notifications for Scale Actions Email Administrator and CoAdministrators Additional email(s) Add email addresses separated by semicolons.

No metric selected.

* Resource xp20161103-cd-hp (serverFarms)

* Metric name Please choose a metric

- Please choose a metric
- CPU Percentage
- Memory Percentage
- Disk Queue Length
- Http Queue Length
- Data In
- Data Out

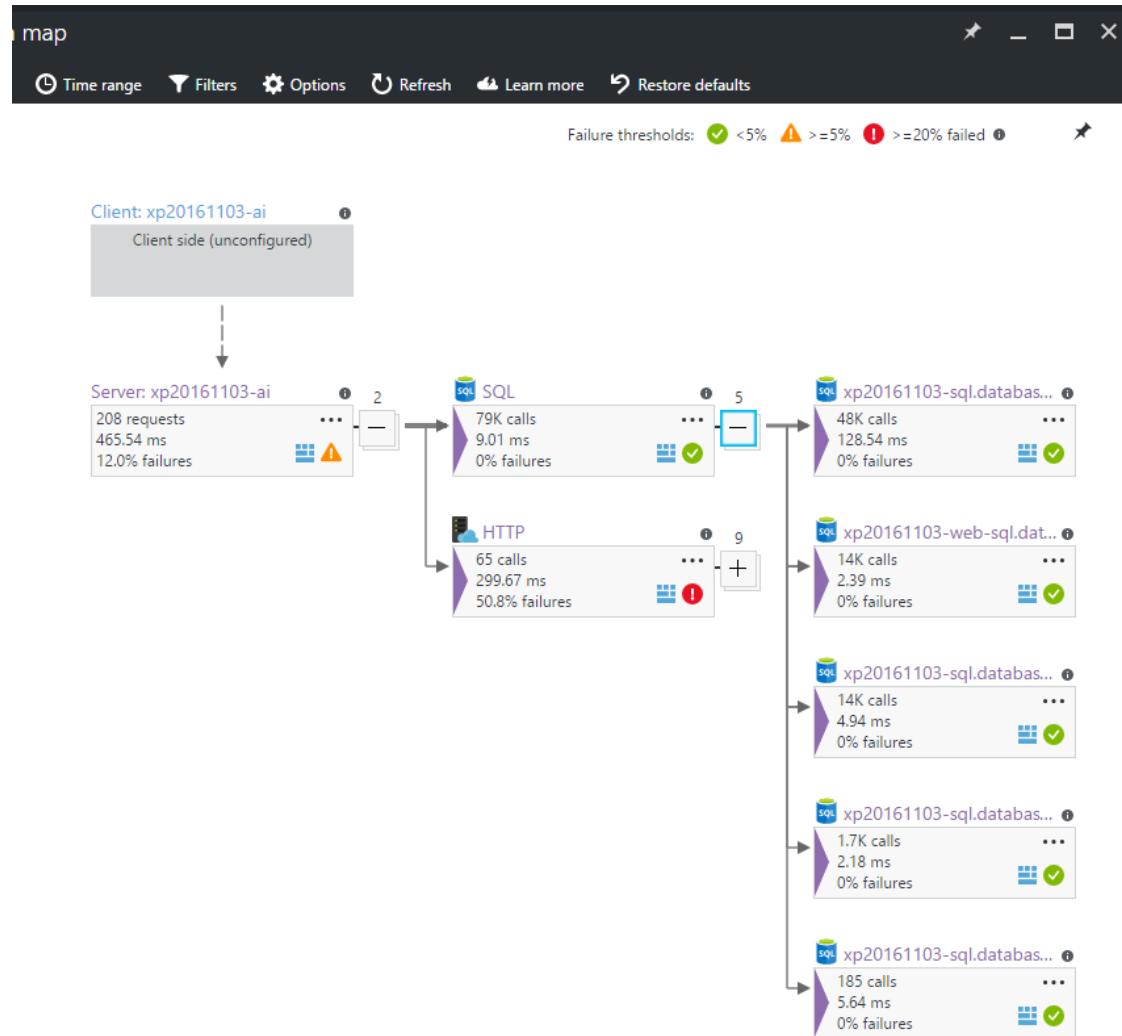
Duration (minutes) 20

Time aggregation Average

* Action Increase count by

Value 1

Application Insights: High level service health



Demo

Diagnostics
App Insights
Azure Monitor

Sitecore XP on Microsoft Azure Compatibility

Component or Module Name	Sitecore XP 8.2 u1+
Experience Platform (xP)	✓
Experience Database (xDB)	✓
Experience Editor	✓
Campaign Creator	✓
Content Testing	✓
Experience Analytics	✓
Device Detection	✓
Path Analyzer	✓
Federated Experience Manager (FXM)	✓
Sitecore Social Connected	✓
List Manager	✓
Sitecore Experience Accelerator 1.2+	✓
Data Exchange Framework 1.2+	✓
Dynamics CRM Connect 1.2+	✓

Component or Module Name	Sitecore XP 8.2 u1+
Active Directory	✗
Print Experience Manager (PXM)	✗
Dynamics CRM Campaign Integration	✗
Email Experience Manager (EXM)	✗
SharePoint Connect	✗
Sitecore Media Framework	✗
Web Forms for Marketers (WFFM)	✗
Sitecore Provider for Data Exchange Framework	✗
Dynamics CRM Provider for Data Exchange Framework	✗

More information here: <https://kb.sitecore.net/articles/201557>

8.2

update-1

Azure Resources

- Azure App Service/Web Apps
- Azure SQL
- Azure Search
- Application Insights
- Redis Cache

ARM Templates

- XP1
- XM1
- xDB1

Azure Marketplace

- XM1 (Nov 2016)
- XP1 (Feb 2017)

8.2

update-x

Azure Resources

- Azure Search Improvements
- Application Insights Improvements

ARM Templates

- XP1-5
- XM1-5
- xDB1-5

8.3

Custom Azure Marketplace

Supported Products

- Sitecore Commerce
- WFFM
- SxA
- ExM

Calculating Azure services costs

- Identify Azure Services
- Work with Sitecore expert for sizing needs
- Work with Microsoft Azure expert to discuss architectures
- Pricing is service dependent
 - Pay per tier
 - VM costs based on tier and paid per minute
 - App Service costs by tier/per instance (plan). Stopped sites also incur charges.
 - Bandwidth (ingress)

<http://azure.microsoft.com/en-us/pricing/>

Call to Action

- Feedback: we want to hear from you!
- Contact your Microsoft rep for assistance on:
 - Azure Architecture (templates, devops, ...)
 - Azure Pricing

Resources

- Sitecore Azure App Service overview

[https://doc.sitecore.net/cloud/working with sitecore azure/sitecore azure app service overview](https://doc.sitecore.net/cloud/working_with_sitecore_azure/sitecore_azure_app_service_overview)

- Deploy a new Sitecore environment to Azure App Service

[https://doc.sitecore.net/cloud/working with sitecore azure/configuring sitecore azure/deploy a new sitecore environment to azure app service](https://doc.sitecore.net/cloud/working_with_sitecore_azure/configuring_sitecore_azure/deploy_a_new_sitecore_environment_to_azure_app_service)

- Deploy a new Sitecore environment to Azure App Service

<https://github.com/Sitecore/Sitecore-Azure-Quickstart-Templates>

Resources

- Azure Marketplace
<https://azure.microsoft.com/en-us/marketplace/>
- ARM Templates
<https://azure.microsoft.com/en-us/documentation/articles/resource-group-authoring-templates/>
- Web Deploy packages
<https://www.iis.net/learn/publish/using-web-deploy/introduction-to-web-deploy>

Resources

- Azure SQL Geo-Replication
<https://azure.microsoft.com/en-us/documentation/articles/sql-database-geo-replication-overview/>
- Azure Search Capacity Planning
<https://azure.microsoft.com/en-us/documentation/articles/search-capacity-planning/>
- MongoDB Replication
<https://docs.mongodb.com/manual/replication/>

Resources

- Web Apps
<https://channel9.msdn.com/events/Build/Build-Tour-2016-Toronto/Web-Apps>
-
- Application Insights
<https://channel9.msdn.com/events/Visual-Studio/Connect-event-2015/603>
-
- Azure Search
<https://channel9.msdn.com/events/Visual-Studio/Connect-event-2014/421>

Resources

- App Service Limitations

<https://azure.microsoft.com/en-us/documentation/articles/azure-subscription-service-limits/#app-service-limits>

- Azure Search limitations

<https://azure.microsoft.com/en-us/documentation/articles/search-limits-quotas-capacity/>

- Azure SQL limitations

<https://azure.microsoft.com/en-us/documentation/articles/sql-database-resource-limits/>

Resources

- Azure Redis limitations

<https://azure.microsoft.com/en-us/pricing/details/cache/>

- App Insights limitations

<https://azure.microsoft.com/en-us/documentation/articles/app-insights-pricing/#limits-summary>

- Azure Products availability by region

<https://azure.microsoft.com/en-us/regions/services/>

Resources

- Introduction to Remote Debugging on Azure Web Sites
<https://azure.microsoft.com/en-us/blog/introduction-to-remote-debugging-on-azure-web-sites/>
- Troubleshoot a web app in Azure App Service using Visual Studio
<https://docs.microsoft.com/en-us/azure/app-service-web/web-sites-dotnet-troubleshoot-visual-studio#remotedebug>
- Debugging an Azure cloud service or virtual machine in Visual Studio
<https://docs.microsoft.com/en-us/azure/vs-azure-tools-debug-cloud-services-virtual-machines#debug-a-cloud-service-in-azure>

Resources

- Set up staging environments for web apps in Azure App Service
<https://azure.microsoft.com/en-us/documentation/articles/web-sites-staged-publishing/>
- Azure Web App sandbox
<https://github.com/projectkudu/kudu/wiki/Azure-Web-App-sandbox>

Thank You!